



Heuristic Korero on Aphasia

**Dr. C. Siva Sankar,
Associate Professor,
Department of Education,
Rajiv Gandhi University, Arunachal Pradesh.**

Abstract

Aphasia is a language deficit in terms of expression and comprehension. Person with aphasia has cognitive and communication difficulties. Individual with aphasia has inability to express and receive what they want and like. There are various types of aphasia. Broca's aphasia is related to non-fluent telegraphic speech. Wernicke's aphasia is related to jargon speech. Conduction aphasia is related to repetition deficit. Nominal aphasia is related to deficit in word-finding and naming. Global aphasia is related to severe impairment in all modalities. Aphasia assessment is to be conducted culturally and linguistically relevant to language and communication. Aphasia therapy develops social skills and confidence, promotes independence and decision making and also social integration. Basically, Primary school teachers should have awareness on aphasia so that he/she can deal children with aphasia. Thus, the main objective of the study is to find out significant differences if any, in awareness on aphasia among primary school teachers due to variation in gender, locality, management, age, educational qualification and teaching experience. Null hypotheses are formulated. The investigator has adopted survey method. The sample of the study is 100 primary school teachers followed by simple random sampling technique. Awareness test is constructed and developed. The reliability of the awareness scale is 0.82 (Using Kr-21) and intrinsic validity was 0.9. From the results, it is clear that 13% (N=100) of primary school teachers of Namsai district, Arunachal Pradesh, India, have high level of awareness on Aphasia. It means, 13% of primary school teachers have higher level of awareness on meaning of aphasia, characteristics of children with aphasia, classification of aphasia, causes of aphasia, assessment procedure for aphasic children and strategies to deal with children with aphasia. 63% (N=100) of primary school teachers have moderate level of awareness on aphasia with regard to meaning of aphasia, characteristics of children with aphasia, classification of aphasia, causes of aphasia, assessment procedure for aphasic children and strategies to deal with children with aphasia. The study signifies that the gender does not differ in awareness on aphasia among the primary school teachers. The aphasic community does not seek sympathy, but empathy and only by having a basic understanding about aphasia primary school teachers may restore the rightful and delightful life.

4035

Key Words: Awareness, Aphasia and Primary School Teacher

DOI Number: 10.48047/NQ.2022.20.12.NQ77728

NeuroQuantology2022;20(12): 4035-4053

Introduction

Aphasia has become an important thrust area in many fields such as neuropsychology, neuro-linguistics and speech-language pathology (Tesak & Code, 2008). Aphasia can be seen as missing speech. Person

with aphasia has lots of communication difficulties. Hillis (2007) states that classification of aphasia has shifted from primarily describing impaired language skills to describing the impaired cognitive functions in language processing. Parr (2007) reveals that individual



with aphasia cannot work very effectively. Aphasic individual may loss self-worth and develop tension. Mackie and Damico (2007) add that the people with aphasia face exclusion from full participation in conversation, obtaining information and making life decisions. People with aphasia may not be able to control their own environment (Drummond, 2006). Aphasia is a cognition-communication deficit. It can impair both communication and cognition (ASHA, 2014). Bakheit et al. (2007) emphasizes that individual with aphasia has inability to communicate freely and frankly with others, inability to express and receive what they want and like. Sometimes, they have inability to learn things systematically. Abha and Gaurav (2011) have reported that Broca's aphasia is related to non-fluent telegraphic speech. Wernicke's aphasia is related to jargon speech. Conduction aphasia is related to repetition deficit. Nominal aphasia is related to deficit word-finding and naming. Global aphasia is related to severe impairment in all modalities. Transcortical aphasia is similar to motor aphasia but with intact repetition. Transcortical sensory aphasia is similar to sensory aphasia, but with intact repetition. Conduction aphasia is a disorder of repetition (Van Der Gaage, 2005).

Aphasia assessment is to be conducted culturally and linguistically relevant to language and communication. Parr (2007) suggests that family, friends and other services should be considered within the therapy process of aphasia. NIDCD (2008) tells that family involvement is a crucial component of aphasia treatment in order to learn how to adopt communication and how to support a person in treatment. NIDCD (2008) tells that aphasia therapy helps in minimizing disability by following alternative means of communication. Aphasia therapy develops social skills and confidence, promotes independence and decision making and also social integration. It also reduces social isolation and maximizes sense of well being and quality of life. Applying therapeutic strategy is also important for aphasic individuals. Intervention for aphasia

should be connected to counseling, collaboration & management, education and advocacy (ASHA, 2014).

Generally, Primary Education is a basic foundation for language acquisition and learning. The main objective of the Primary Education is to achieve 3R's (reading, writing and arithmetic) among primary school children. Language is an effective tool to attain not only reading and writing skills but also speaking skills. Curriculum for primary education should focus on gaining language skills. There is research evidence that many of the children at school level have been suffering from language deficits in terms of comprehension and expression. And teachers have to identify children with aphasia and provide necessary intervention for those children to achieve success academically as well as socially. Teachers have to follow suitable teaching strategies for children with aphasia for their motor, cognitive and social development. At all events, primary teachers have to be aware of aphasia to deal with the aphasic students. They should be able to guide and help the students so that they do not exclude themselves from their surroundings and they may try to avoid depression. Many researchers have been conducted on aphasia in abroad, but it is a recent area for doing research in India. And no single study on aphasia has been conducted in connection to Namsai district of Arunachal Pradesh in India. Namsai district is a plain region. The major tribes residing in Namsai district are khampiti and Singpho. Namsai is slowly emerging as an educational hub with large number of schools, three colleges and one university. Keeping in view the importance of the awareness of aphasia, the researcher wants to investigate on primary school teachers' awareness on aphasia in Namsai district of Arunachal Pradesh. Hence, the investigator has stated the problem as: *"Awareness on Aphasia among Primary School Teachers in Namsai District of Arunachal Pradesh"*

Objectives of the Study



1. To find out awareness level among primary school teachers on aphasia.
2. To find out significant difference if any, in awareness on aphasia among primary schools teachers due to variation in gender.
3. To find out significant difference if any, in awareness on aphasia among primary school teachers due to variation in locality.
4. To find out significant difference if any, in awareness on aphasia among primary school teachers due to variation in management.
5. To find out significant difference if any, in awareness on aphasia among primary school teachers due to variation in age.
6. To find out significant difference if any, in awareness on aphasia among primary school teachers due to variation in educational qualification.
7. To find out significant difference if any, in awareness on aphasia among primary school teachers due to variation in teaching experience.

Hypotheses of the Study

1. There is no significant difference in awareness on aphasia among primary school teachers due to variation in gender.
2. There is no significant difference in awareness on aphasia among primary school teachers due to variation in locality.
3. There is no significant difference in awareness on aphasia among primary school teachers due to variation in management.
4. There is no significant difference in awareness on aphasia among primary school teachers due to variation in age.
5. There is no significant difference in awareness on aphasia among primary

school teachers due to variation in education qualification.

6. There is no significant difference in awareness on aphasia among primary school teachers due to variation in teaching experience.

Delimitations of the Study

1. The present study is limited to primary school teachers only.
2. Area of the study is limited to Namsai district of Arunachal Pradesh only.
3. The present study is limited to awareness only.
4. The present study is limited to six independent variables namely gender, age, locality, management, educational qualification and teaching experience.

Research Methodology

Methods and Materials:

The present study was connected to descriptive in nature because the present study aimed at discovering the facts based on empirically gathered primary data. So, the investigator has adopted survey method. Through the survey method it is possible to focus on factual information related to the present within short period. Therefore, the present investigator has followed this in order to see existing knowledge on aphasia among primary school teachers in Namsai district of Arunachal Pradesh.

Population signifies total number of aspects for which information is collected and investigation is conducted. The population of the present study is finite. The total population is 603 primary school teachers working in both government and private schools (DDSE, Namsai). Sample is a small proportion of the population and representation of the population. In this present study, the investigator has adopted sample of 100 by using simple random sampling technique.

4037

Table-1: Showing the Demographic Characteristics of the Sample

Variables	Sub-Categories	Sample size
	Male	49



<i>Gender</i>	Female	56
<i>Locality</i>	Rural	48
	Urban	52
<i>Management</i>	Private	60
	Government	40
<i>Education qualification</i>	12 th Standard	13
	Under graduate	48
	Post graduate	39
<i>Age</i>	18 – 28 years	46
	29 – 38 years	37
	Above 38 years	17
<i>Experience</i>	< 11 years	62
	11 – 20 years	25
	Above 20 years	13

Construction and Development of the Awareness Test on Aphasia:

a) Editing of the Statements

For accumulating pertinent authentic and valid data in any field of research, the selection of suitable and valid instruments or tools is required. In this present study, awareness scale was constructed and developed by the investigator for collecting data. The investigator has collected various items on theory of aphasia in connection with concept, causes, characteristics, strategies and assessment procedure. The researcher designed items in a simple manner by dividing items in four sections. Section A is reflected on concept on aphasia and it contains 20 Multiple Choice Questions, section B is reflected on characteristics on aphasia and it contains 10 true and false statements, section C is reflected on causes on aphasia and it contains 5 fill in the blanks and section D is reflected on assessment and strategies on aphasia. And it also contains 5 Short Questions. For section A, righteous response will be scored as 1 and wrong response will be scored as 0. For section B, true

statement is treated with score 1 and false statement is treated with score 0. For section C, the righteous key word for gaining answer is carried out with score 1 and for section D, at least one righteous answer in the form of statement is carried out with 3 point score. So, the total tool consists of 50 scores at maximum.

b) Tryout analysis: This tool was administered on a sample of 10 teachers working at primary level in order to look into item difficulty (I.D) as well as item discrimination. By collecting data from the said sample item difficulty was calculated for each item by using formula of $I.D = \frac{R}{T} \times 100$. Where, R= number of right responses; T= total number of cases attempted. For calculating discriminating power (D.P) top 27% and bottom 27% of answer sheets were arranged as per optioned scores. The discrimination power was calculated for each item by using formula of $D.P = \frac{RU - RL}{N/2}$; Where, RU= upper 27% cases who attempted right answer for each item. RL= lower 27% cases who attempted right answer for each item.

4038

Table-2: Showing I.D and D.P for each statement

Sl. no.	Item no.	I.D	D.P	Remark
1	1	100	0.0	Rejected
2	2	100	0.0	Rejected
3	3	55.56	0.33	Accepted
4	4	66.67	0.67	Accepted



5	5	40	0.33	Accepted
6	6	77.78	0.33	Accepted
7	7	77.78	0.33	Accepted
8	8	66.67	0.0	Rejected
9	9	10	0.0	Rejected
10	10	22.20	0.0	Rejected
11	11	66.67	0.33	Accepted
12	12	22.22	0.0	Rejected
13	13	70	0.67	Accepted
14	14	75	0.67	Accepted
15	15	75	0.0	Accepted
16	16	75	0.67	Accepted
17	17	33	0.33	Accepted
18	18	50	0.33	Accepted
19	19	55	0.33	Accepted
20	20	33.33	0.67	Accepted
21	21	75	0.67	Accepted
22	22	55	0.67	Accepted
23	23	50	0.67	Accepted
24	24	50	0.33	Accepted
25	25	75	0.0	Accepted
26	26	75	0.67	Accepted
27	27	33	0.33	Accepted
28	28	50	0.33	Accepted
29	29	55	0.33	Accepted
30	30	33.33	0.67	Accepted
31	31	75	0.67	Accepted
32	32	55	0.67	Accepted
33	33	50	0.67	Accepted
34	34	50	0.33	Accepted
35	35	0	0.0	Rejected
36	36	33.33	0.67	Accepted
37	37	75	0.67	Accepted
38	38	55	0.67	Accepted
39	39	50	0.67	Accepted
40	40	33	0.33	Accepted

From the above table, it is clear that the item which contained DP value as 0.3 and above 0.3 was considered under acceptance. Subsequently, the item which contained DP value below 0.3 and above 0.8 was considered under rejection. The item which contained ID score as 30 and above 30 as well as 80 and below 80 was considered under acceptance. The item which contained ID value as below 30

and above 80 was considered under rejection. In the present study, the item numbers 1, 2, 8, 9, 10, 12 and 35 were rejected in the light of obtained ID and DP values. But these items were rejected due to linguistic complexity and higher intensity of simplicity. Keeping in view the importance of objective and valid content, these items were modified partially to accept under this study.



For example, item No. 1.

$$\begin{aligned}
 ID &= \frac{R}{T} \times 100 \\
 &= \frac{6}{6} \times 100 \\
 &= 100 \\
 DP &= \frac{RU - RL}{N/2} \\
 &= \frac{3 - 3}{10/2} \\
 &= 0.0
 \end{aligned}$$

The I.D for item 1 was 100 and D.P was 0.0. So, the item was rejected.

c) Final Draft

In final draft, the modified items were also included. There were 40 items followed by *multiple choice, true/false, fill in the blanks and short answer type questions*. There were 20 items in *multiple choice*, 10 items in *true/false*, 5 items in *'fill in the blanks'* and 5 items under *short answer type questions*. The reliability as well as validity of the tool was calculated.

The reliability of the test was 0.82 (Using Kr-21) and intrinsic validity was 0.91

$$\begin{aligned}
 \text{Kr-21} &= \frac{K}{K-1} \left(1 - \frac{M(K-M)}{KS^2} \right) \\
 K &= \text{No. of items in the test} \\
 M &= \text{Mean of the test scores} \\
 S &= \text{S.D of the whole test} \\
 \sum X &= 216 \\
 K &= 40 \\
 M &= 21.6 \\
 \sigma &= 8.82 \\
 \text{Kr21} &= \frac{40}{40-1} \left(1 - \frac{21.6(50-21.6)}{40(8.82)^2} \right) \\
 &= \frac{40}{39} \left(1 - \frac{613.44}{3111.6} \right) \\
 &= 1.03(1-0.20) \\
 &= 0.82
 \end{aligned}$$

From the expert's view on content, it was clear that the present tool followed the relevant, appropriate and necessary content. Hence, this tool possessed content validity. Face validity refers to the degree to which a procedure appears effective in terms of its stated achievable objectives. The present tool possessed face validity due to its effective procedural appearance in the light of objectives as well as expert's view towards the tool preparation and administration the Intrinsic Validity of the tool was 0.91.

Scoring procedure:

For section A, righteous response was scored as 1 and an incorrect response was scored as 0. For section B, true statement was awarded a score of 1 and an incorrect

statement was awarded a score of 0. For section C, the right key word in the blank was scored as 1 and wrong key word in the blank was scored as 0. For section D, at least one righteous answer in the form of statement was awarded with a 3 point score. At all events, the final tool was ranged from 1 to 50.

Statistical Techniques Used

Statistical techniques contribute in the analysis of data. In this study, two types of analysis were adopted.

1. Descriptive analysis: Descriptive analysis is used for describing and summarizing a set of data. In this present study, descriptive analysis was carried out in terms of the following



- a. Frequency: Frequency is the rate at which a score occurs in the samples taken.
 - b. Percentage: Percentage is a number or ratio expressed as a fraction of 100.
 - c. Mean: It is arithmetic average of the given data.
 - d. Standard deviation: SD is a measure that is used to quantify the amount of variation or dispersion of set of data.
2. Inferential analysis: The inferential analysis helps in testing of hypotheses, inferences and conclusions from the outcomes of descriptive analysis of the data. In the present study, inferential analysis was carried out in terms of t-test and F-test.
 - a. t-test: It is used when there are two type variables.
 - b. F-test (ANOVA): It is used in case of three or more variables.

Results and Discussion:

Objective 1: To find out awareness level among primary school teachers on aphasia.

Table-3: Levels of awareness on Aphasia

Total	Low Level		Moderate Level		High Level	
	1-16		17-32		33-50	
100	f	%	f	%	f	%
	24	24	63	63	13	13

From the table-4.1, it is clear that 13% (N=100) of primary school teachers of Namsai district, Arunachal Pradesh have high level of awareness on Aphasia. It means, 13% of primary school teachers have higher level awareness on meaning of aphasia, characteristics of children with aphasia, classification of aphasia, causes of aphasia, assessment procedure for aphasic children and strategies to deal with children with aphasia. 63% (N=100) of primary school teachers have moderate level of awareness on aphasia with regard to meaning of aphasia, characteristics of children with aphasia, classification of aphasia, causes of aphasia, assessment procedure for aphasic children and

strategies to deal with children with aphasia. Finally, 24% (N=100)of primary school teachers have low level of awareness on aphasia in connection with meaning of aphasia, characteristics of children with aphasia, classification of aphasia, causes of aphasia, assessment procedure for aphasic children and strategies to deal with children with aphasia.

Objective-2: To find out significant difference if any, in awareness on aphasia among primary school teachers due to variation in gender.

Hypothesis-1: There is no significant difference in awareness on aphasia among primary school teachers due to variation in gender.

Table-4: Showing Mean, SD, and t-values of awareness on Aphasia among primary school teachers with respect to gender

Dimensions	Gender				SE _d	D	t-values
	Male		Female				
	\bar{X}_1	σ_1	\bar{X}_2	σ_2			
Section A	9.39	2.42	9.89	3.47	0.59	0.5	0.85



Section B	6.89	1.95	7.07	1.97	0.39	0.18	0.46
Section C	2.34	1.38	1.91	1.26	0.26	0.43	1.65
Section D	4.45	4.71	4.27	5.04	0.98	0.18	0.18
Overall awareness scores	23.07	13.90	23.14	8.65	2.39	0.07	0.03

The t-value (0.85) with regard to section A ($\bar{X}_1=9.39, \sigma_1=2.42; \bar{X}_2=9.89, \sigma_2=3.47; SE_d=0.59; df=98; P> 0.01$) is not significant. So, H_0 is accepted. It signifies that gender does not differ in awareness on aphasia among primary school teachers with respect to section A. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in gender with respect to section A (concept on aphasia). From the 'mean values' it is clear that the female primary school teachers are slightly higher in their awareness ($\bar{X}_2=9.89$) than the male primary school teachers ($\bar{X}_1=9.38$). From SD values it is clear that awareness score of female primary school teachers are more dispersed ($\sigma_2=3.74$) than that of male prospective teachers' awareness scores ($\sigma_1=2.42$).

The t value (0.46) with regard to section B ($\bar{X}_1=6.89, \sigma_1=1.95; \bar{X}_2=7.07, \sigma_2=1.97; SE_d=0.39; df=98; P> 0.01$) is not significant. So, H_0 is accepted. It signifies that gender does not differ in awareness on aphasia among the primary school teachers with respect to section B. It means there is no significant difference in awareness on aphasia among the primary school teachers due variation in gender with respect to section B (Characteristics of aphasia). From the mean values it is clear that female primary school teachers are higher in their awareness ($\bar{X}_2=7.07$) than the male primary school teachers ($\bar{X}_1=6.89$). From SD values it is clear that awareness score of the female primary school teachers are slightly more dispersed ($\sigma_2=1.97$) than male prospective teachers' awareness scores ($\sigma_1=1.95$).

The t-value (1.65) with regard to section C ($\bar{X}_1=2.34, \sigma_1=1.38; \bar{X}_2=1.91, \sigma_2=1.26; SE_d=0.26; df=98; P> 0.01$) is not significant. So, H_0 is accepted. It signifies that gender does not differ in awareness on aphasia among the primary school teachers with respect to section C. It means there is no significant difference in awareness on aphasia among the primary school teachers due variation in gender with respect to section C (causes of aphasia). From the 'mean values' it is clear that the female primary school teachers are lower in their awareness ($\bar{X}_2=1.91$) than the male primary school teachers ($\bar{X}_1=2.34$). From SD values it is clear that awareness score of the female primary school teachers are slightly less dispersed ($\sigma_1=1.26$) than the male prospective teachers' awareness scores ($\sigma_1=1.38$).

The t-value (0.18) with regard to section D ($\bar{X}_1=4.45, \sigma_1=4.71; \bar{X}_2=4.27, \sigma_2=5.04; SE_d=0.98; df=98; P> 0.01$) is not significant. So, H_0 is accepted. It tells that gender does not differ in awareness on aphasia among the primary school teachers with respect to section D. It means there is no significant difference in awareness on aphasia among the primary school teachers due variation in gender with respect to section D (assessment and strategies on aphasia). From the 'mean values' it is clear that the female primary school teachers are slightly lower in their awareness ($\bar{X}_2=4.27$) than the male primary school teachers ($\bar{X}_1=4.45$). From SD values it is clear that awareness score of female primary school teachers are more dispersed ($\sigma_2=5.04$) than the male prospective teachers' awareness scores ($\sigma_1=4.71$).



The t-value (0.03) with regard to the overall awareness scores of both male and female primary school teachers ($\bar{X}_1=23.07$, $\sigma_1=13.90$; $\bar{X}_2=23.14$, $\sigma_2=8.65$; $SE_d=2.39$; $df=98$; $P \leq 0.01$) is not significant. So, H_0 is accepted. It signifies that the gender does not differ in awareness on aphasia among the primary school teachers. It means there is no significant difference in awareness on aphasia among the primary school teachers due variation in gender. From the 'mean values' it is clear that the female primary school teachers are slightly

higher in their awareness ($\bar{X}_2=23.14$) than the male primary school teachers ($\bar{X}_1=23.07$). From SD values it is clear that awareness score of the female primary school teachers are less dispersed ($\sigma_2=8.65$) than the male prospective teachers' awareness scores ($\sigma_2=13.90$).

Objective-3: To find out significant difference if any in awareness on aphasia among primary school teachers due to variation in locality.

Hypothesis-2: There is no significant difference in awareness on aphasia among primary school teachers due to variation in locality.

Table-5: Showing Mean, SD, and t-values of awareness on Aphasia among primary school teachers with respect to locality

Dimensions	Locality				SE _d	D	t-values
	Rural		Urban				
	\bar{X}_1	σ_1	\bar{X}_2	σ_2			
Section A	9.50	3.02	9.79	3.08	0.16	0.29	0.48
Section B	6.90	2.05	7.04	1.85	0.39	0.14	0.36
Section C	2.29	1.31	1.98	1.34	0.26	0.31	1.19
Section D	4.58	5.32	4.21	4.56	0.99	0.37	0.37
Overall awareness scores	23.21	8.83	23.02	7.37	1.63	0.19	0.12

The t-value (0.48) with regard to section A ($\bar{X}_1=9.50$, $\sigma_1 =3.02$; $\bar{X}_2=9.79$, $\sigma_2 =3.08$; $SE_d=0.16$; $D=0.29$; $df=98$; $P > 0.01$) is not significant. So, H_0 is accepted. It signifies that the locality does not differ in awareness on aphasia among primary school teachers with respect to section A. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in locality with respect to section A (concept of aphasia). From the mean values it is clear that the urban primary school teachers are slightly lower in their awareness ($\bar{X}_2=9.79$) than the rural primary school teachers ($\bar{X}_2=9.50$). From SD values it is clear that the awareness score of the urban primary

school teachers are slightly more dispersed ($\sigma_2=3.08$) than rural prospective teachers' awareness scores ($\sigma_1=3.02$).

The t-value (0.36) with regard to section B ($\bar{X}_1=6.90$, $\sigma_1=2.05$; $\bar{X}_2=7.04$, $\sigma_2=1.85$; $SE_d=0.39$; $df=98$; $P > 0.01$) is not significant. So, H_0 is accepted. It signifies that locality does not differ in awareness on aphasia among primary school teachers with respect to section B. It means there is no significant difference in awareness on aphasia among the primary school teachers due variation in locality with respect to section B (characteristics of aphasia). From the mean values it is clear that the urban primary school teachers are more in their



awareness ($\bar{X}_2=7.04$) than the rural primary school teachers ($\bar{X}_1=6.90$). From SD values it is clear that the awareness score of the urban primary school teachers are less dispersed ($\sigma_2=1.85$) than rural prospective teachers' awareness scores ($\sigma_1=2.05$).

The t-value (1.19) with regard to section C ($\bar{X}_1=2.29, \sigma_1=1.31; \bar{X}_2=1.98, \sigma_2=1.34; SE_d=0.26; df=98; P> 0.01$) is not significant. So, H_0 is accepted. It signifies that locality doesn't differ in awareness on aphasia among primary school teachers with respect to section C. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in locality with respect to section C (causes of aphasia). From the mean values it is clear that the urban primary school teachers are less in their awareness ($\bar{X}_2=1.98$) than the rural primary school teachers ($\bar{X}_1=2.29$). From SD values it is clear that awareness score of the urban primary school teachers are slightly more dispersed ($\sigma_2=1.34$) than rural prospective teachers' awareness scores ($\sigma_1=1.31$).

The t-value (0.36) with regard to section D ($\bar{X}_1=4.58, \sigma_1=5.32; \bar{X}_2=4.21, \sigma_2=4.56; SE_d=0.99; df=98; P> 0.01$) is not significant. So, H_0 is accepted. It signifies that locality does not differ in awareness on aphasia among primary school teachers with respect to section D. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in locality with respect to section D (assessment and strategies on aphasia). From

Table-6: Showing Mean, SD, and t-values of awareness on Aphasia among primary school teachers with respect to management

Dimensions	Management				SE_d	D	t-values
	Private		Government				
	\bar{X}_1	σ_1	\bar{X}_2	σ_2			
Section A	9.33	3.03	10.18	3.06	0.62	0.85	1.37
Section B	7.17	1.78	6.73	2.19	0.41	0.44	1.07
Section C	2.12	1.27	2.08	1.42	0.28	0.04	0.14
Section D	5.46	4.89	2.68	4.39	0.94	2.78	2.96

the mean values it is clear that urban primary school teachers are slightly lower in their awareness ($\bar{X}_2=4.21$) than the rural primary school teachers ($\bar{X}_1=4.58$). From SD values it is clear that awareness score of urban primary school teachers are less dispersed ($\sigma_2=4.56$) than rural prospective teachers' awareness scores ($\sigma_1=5.32$).

The t-value (0.12) with regard to overall awareness scores of both rural and urban primary school teachers ($\bar{X}_1=23.21, \sigma_1=8.83; \bar{X}_2=23.02, \sigma_2=7.37; SE_d=1.63; df=98; P\leq 0.01$) is not significant. So, H_0 is accepted. It signifies that locality does not differ in awareness on aphasia among the primary school teachers. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in locality with respect to both rural and urban primary school teachers. From the mean values it is clear that the urban primary school teachers are slightly lower in their awareness ($\bar{X}_2=23.02$) than the rural primary school teachers ($\bar{X}_1=23.21$). From SD values it is clear that urban primary school teachers' awareness scores are less dispersed ($\sigma_2=7.37$) than rural prospective teachers' awareness scores ($\sigma_1=8.83$).

Objective-4: To find out significant difference if any in awareness on aphasia among primary school teachers due to variation in management.

Hypothesis-3: There is no significant difference in awareness on aphasia among primary school teachers due to variation in management.

4044



Overall awareness scores	24.08	8.28	22.15	7.62	1.61	1.93	1.20
--------------------------	-------	------	-------	------	------	------	------

The t-value (1.37) with regard to section A ($\bar{X}_1=9.33$, $\sigma_1=3.03$; $\bar{X}_2=10.18$, $\sigma_2=3.06$; $SE_d=0.62$; $df=98$; $P > 0.01$) is not significant. So, H_0 is accepted. It tells that management doesn't differ in awareness on aphasia among primary school teachers with respect to section A. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in management with respect to section A (concept of aphasia). From the mean values it is clear that government primary school teachers are higher in their awareness ($\bar{X}_2=10.18$) than the private primary school teachers ($\bar{X}_1=9.33$). From SD values it is clear that government primary school teachers awareness scores are very slightly more dispersed ($\sigma_2=3.06$) than primary prospective teachers' awareness scores ($\sigma_1=3.03$).

The t-value (1.07) with regard to section B ($\bar{X}_1=7.17$, $S.D1=1.78$; $\bar{X}_2=6.73$, $S.D2=2.19$; $SE_d=0.41$; $df=98$; $P > 0.01$) is not significant. So, H_0 is accepted. It tells that management doesn't differ in awareness on aphasia among primary school teachers with respect to section B. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in management with respect to section B (characteristics of aphasia). From the mean values it is clear that government primary school teachers are lower in their awareness ($\bar{X}_2=6.73$) than the private primary school teachers ($\bar{X}_1=7.17$). From SD values it is clear that government primary school teachers awareness scores are more dispersed ($\sigma_2=2.19$) than primary prospective teachers' awareness scores ($\sigma_1=1.7$).

The t-value (0.14) with regard to section C ($\bar{X}_1=2.12$, $\sigma_1=1.27$; $\bar{X}_2=2.08$, $\sigma_2=1.42$; $SE_d=0.28$; $df=98$; $P > 0.01$) is not significant. So, H_0 is accepted. It tells that management doesn't differ in awareness on aphasia among primary

school teachers with respect to section C. It means there is no significant difference in awareness on aphasia among primary school teachers due variation in management with respect to section C (causes of aphasia). From the mean values it is clear that government primary school teachers are slightly lower in their awareness ($\bar{X}_2=2.08$) than the private primary school teachers ($\bar{X}_1=2.12$). From SD values it is clear that government primary school teachers awareness scores are slightly more dispersed ($\sigma_2=1.42$) than primary prospective teachers' awareness scores ($\sigma_1=1.27$).

The t-value (2.96) with regard to section D ($\bar{X}_1=5.46$, $\sigma_1=4.89$; $\bar{X}_2=2.68$, $\sigma_2=4.39$; $SE_d=0.94$; $df=98$; $P > 0.01$) is significant. So, H_0 is rejected. It tells that management does differ in awareness on aphasia among primary school teachers with respect to section D. It means there is significant difference in awareness on aphasia among primary school teachers due variation in locality with respect to section D (assessment and strategies on aphasia). From the mean values it is clear that government primary school teachers are less in their awareness ($\bar{X}_2=2.68$) than the private primary school teachers ($\bar{X}_1=5.46$). From SD values it is clear that government primary school teachers awareness scores are less dispersed ($\sigma_2=2.68$) than private prospective teachers' awareness scores ($\sigma_1=4.89$).

The t-value (1.20) with regard to overall awareness scores scores of both private and government primary school teachers ($\bar{X}_1=23.21$, $\sigma_1=8.83$; $\bar{X}_2=23.02$, $\sigma_2=7.37$; $SE_d=1.63$; $df=98$; $P \leq 0.01$) is not significant. So, H_0 is accepted. It tells that management doesn't differ in awareness on aphasia among primary school teachers. It means there is no significant difference in awareness on aphasia among

4045



primary school teachers due variation in management with respect to both private and government primary school teachers. From the mean values it is clear that government primary school teachers are lower in their awareness ($\bar{X}_2=22.15$) than the private primary school teachers ($\bar{X}_1=24.08$). From SD values it is clear that government primary school teachers awareness scores are less dispersed ($\sigma_2=7.62$)

than private prospective teachers' awareness scores ($\sigma_1=8.28$).

Objective-5: To find out significant difference if any in awareness on aphasia among primary school teachers due to variation in age.

Hypothesis-4: There is no significant difference in awareness on aphasia among primary school teachers due to variation in age.

Table-7: Showing Mean, $SS(V)_b, SS(w)_w$, MS and F-values of awareness on Aphasia among primary school teachers with respect to age

Dimensions	Variables	Sub categories	N	Mean	Sources of variance	Sum of squares	Df	Mean squares	F – values
Section A	Age	18 to 28 years	46	10.54	Between groups	74.03	2	37.02	4.15
		29 to 38 years	37	8.65					
		Above 38 years	17	9.53	Within groups	866.08	97	8.93	
Section B	Age	18 to 28 years	46	7.04	Between groups	0.25	2	0.13	0.03
		29 to 38 years	37	6.95					
		Above 38 years	17	6.94	Within groups	384.74	97	3.97	
Section C	Age	18 to 28 years	46	1.93	Between groups	6.43	2	3.22	1.30
		29 to 38 years	37	2.05					
		Above 38 years	17	2.65	Within groups	240.57	97	2.48	
Section D	Age	18 to 28 years	46	4.89	Between groups	1537.90	2	768.95	67.16
		29 to 38 years	37	20.86					
		Above 38 years	17	3.59	Within groups	1110.85	97	11.45	

4046



Overall awareness scores	Age	18 to 28 years	46	25.07	Between groups	365.14	2	182.57	2.85
		29 to 38 years	37	20.86					
		Above 38 years	17	22.71	Within groups	6204.65	97	63.97	

The calculated F-value (4.15) with respect to section A due to variation in age ($N_1=46, \bar{X}_1=10.54; N_2=37, \bar{X}_2=8.65; N_3=17, \bar{X}_3=9.53; SSb=74.03; SSw=866.08; dfb=2, dfw=97; MS(V)b=37.02, MS(V)w=8.93; P > 0.01$) is not significant. So, α_0 is accepted. It means age doesn't differ in awareness on aphasia among primary school teachers with respect to section A. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in age with regard to section A (concept of aphasia). From the mean values it is clear that primary school teachers of age group 18 to 28 years are higher in their awareness ($\bar{\alpha}_1=10.67$) than the primary school teachers of age group 29 to 38 years ($\bar{\alpha}_2=8.65$) and 38 years and above ($\bar{\alpha}_3=9.53$).

The calculated F-value (0.03) with respect to section B due to variation in age ($\alpha_1=46, \bar{\alpha}_1=7.04; \alpha_2=37, \bar{\alpha}_2=6.95; \alpha_3=17, \bar{\alpha}_3=6.94; SSb=0.25; SSw=384.74; dfb=2, dfw=97; MS(V)b=0.13, MS(V)w=3.97; P > 0.01$) is not significant. So, α_0 is accepted. It means age doesn't differ in awareness on aphasia among primary school teachers with respect to section B. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in age with regard to section B (characteristics of aphasia). From the mean values it is clear that primary school teachers of age group 18 to 28 years are higher in their awareness ($\bar{\alpha}_1=7.04$) than the primary school teachers of age group 29 to 38 years ($\bar{\alpha}_2=6.95$) and 38 years and above ($\bar{\alpha}_3=6.94$).

The calculated F-value (1.30) with respect to section C due to variation in age ($\alpha_1=46, \bar{\alpha}_1=1.93; \alpha_2=37, \bar{\alpha}_2=2.05; \alpha_3=17, \bar{\alpha}_3=2.65; SSb=6.43; SSw=240.57; dfb=2, dfw=97; MS(V)b=3.22, MS(V)w=2.48; P > 0.01$) is not significant. So, α_0 is accepted. It means age doesn't differ in awareness on aphasia among primary school teachers with respect to section C. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in age with regard to section C (causes of aphasia). From the mean values it is clear that primary school teachers of ages 38 years and above are higher in their awareness ($\bar{\alpha}_3=2.65$) than the primary school teachers of age group 18 to 28 years ($\bar{\alpha}_1=1.93$) and age group 29 to 38 years ($\bar{\alpha}_2=2.05$).

The calculated F-value (67.16) with respect to section D due to variation in age ($\alpha_1=46, \bar{\alpha}_1=4.89; \alpha_2=37, \bar{\alpha}_2=3.22; \alpha_3=17, \bar{\alpha}_3=3.59; SSb=1537.9; SSw=1110.85; dfb=2, dfw=97; MS(V)b=768.95, MS(V)w=11.45; P \leq 0.01$) is significant. So, α_0 is rejected. It means age does differ in awareness on aphasia among primary school teachers with respect to section D. Therefore, there is significant difference in awareness on aphasia among primary school teachers due to variation in age with regard to section D (assessment and strategies on aphasia). From the mean values it is clear that primary school teachers of age group 18 to 28 years are higher in their awareness ($\bar{\alpha}_1=4.89$) than the primary school teachers of age group 29 to 38 years ($\bar{\alpha}_2=3.22$) and ages 38 years and above ($\bar{\alpha}_3=3.59$).

The calculated F-value (2.85) with respect to overall awareness scores scores of primary



school teachers due to variation in age ($\bar{x}_1=46$, $\bar{x}_2=25.07$; $\bar{x}_2=37$, $\bar{x}_2=20.86$; $\bar{x}_3=17$, $\bar{x}_3=22.71$; $SS_b=365.14$; $SS_w=6204.65$; $df_b=2$, $df_w=97$; $MS(V)_b=182.57$, $MS(V)_w=63.97$; $P > 0.01$) is not significant. So, H_0 is accepted. It means age doesn't differ in awareness on aphasia among primary school teachers with respect to the overall awareness scores. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in age. From the mean values it is clear that primary school teachers of age group

18 to 28 years are higher in their awareness ($\bar{x}_1=25.07$) than the primary school teachers of age group 29 to 38 years ($\bar{x}_2=20.86$) and ages 38 years and above ($\bar{x}_3=22.71$).

Objective-6: To find out significant difference if any in awareness on aphasia among primary school teachers due to variation educational qualification.

Hypothesis-5: There is no significant difference in awareness on aphasia among primary school teachers due to educational qualification.

Table-8: Showing Mean, \bar{x} , \bar{x} , \bar{x} , MS and F-values of awareness on Aphasia among primary school teachers with respect to educational qualification

Dimensions	Variables	Sub categories	N	Mean	Sources of variance	Sum of squares	Df	Mean squares	F-values
Section A	Educational qualification	12 pass	13	10.54	Between groups	137.04	2	68.52	4.15
		U.G	48	8.65					
		P.G	39	9.53	Within groups	803.07	97	8.28	
Section B	Educational qualification	12 pass	13	7.04	Between groups	29.57	2	14.79	0.03
		U.G	48	6.95					
		P.G	39	6.94	Within groups	355.42	97	3.66	
Section C	Educational qualification	12 pass	13	1.93	Between groups	21.54	2	10.77	1.30
		U.G	48	2.05					
		P.G	39	2.65	Within groups	4808.46	97	49.57	
		12 pass	13	4.89					

4048



Section D	Educational qualification	U.G	48	20.86	Between groups	146.62	2	73.31	67.16
		P.G	39	3.59	Within groups	2250.13	97	23.20	
Overall awareness scores	Educational qualification	12 pass	13	25.07	Between groups	1056.48	2	528.24	2.85
		U.G	48	20.86					
		P.G	39	22.71	Within groups	4729.31	97	48.76	

The calculated F-value (8.28) with respect to section A due to variation in educational qualification ($N_1=13, \bar{X}_1=6.92; N_2=48, \bar{X}_2=9.60; N_3=39, \bar{X}_3=10.67; SSb=137.04; SSw=803.07; dfb=2, dfw=97; MS(V)b=68.52, MS(V)w=8.28; P \leq 0.01$) is significant. So, H_0 is rejected. It means educational qualification differs in awareness on aphasia among primary school teachers with respect to section A. Therefore, there is a significant difference in awareness on aphasia among primary school teachers due to variation in educational qualification with regard to section A (concept of aphasia). From the mean values it is clear that post graduate primary school teachers are higher in their awareness ($\bar{X}_3=10.67$) than the 12 pass ($\bar{X}_1=6.92$) and under graduate primary school teachers ($\bar{X}_2=9.60$).

The calculated F-value (4.04) with respect to section B due to variation in educational qualification ($N_1=13, \bar{X}_1=5.61; N_2=48, \bar{X}_2=7.03; N_3=39, \bar{X}_3=7.33; SSb=29.57; SSw=355.42; dfb=2, dfw=97; MS(V)b=14.79, MS(V)w=3.66; P > 0.01$) is not significant. So, H_0 is accepted. It means educational qualification doesn't differ in awareness on aphasia among primary school teachers with respect to section B. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in educational qualification with regard to section B

(characteristics of aphasia). From the mean values it is clear that post graduate primary school teachers are higher in their awareness ($\bar{X}_3=7.33$) than the 12 pass ($\bar{X}_1=5.61$) and under graduate primary school teachers ($\bar{X}_2=7.03$).

The calculated F-value (0.22) with respect to section C due to variation in educational qualification ($N_1=13, \bar{X}_1=0.92; N_2=48, \bar{X}_2=2.19; N_3=39, \bar{X}_3=2.38; SSb=21.54; SSw=4808.46; dfb=2, dfw=97; MS(V)b=10.77, MS(V)w=49.57; P > 0.01$) is not significant. So, H_0 is accepted. It means educational qualification doesn't differ in awareness on aphasia among primary school teachers with respect to section C. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in educational qualification with regard to section C (causes of aphasia). From the mean values it is clear that under graduate primary school teachers are higher in their awareness ($\bar{X}_2=2.19$) than the 12 pass ($\bar{X}_1=0.92$) and post graduate primary school teachers ($\bar{X}_3=2.38$).

The calculated F-value (3.16) with respect to section D due to variation in educational qualification ($N_1=13, \bar{X}_1=1.31; N_2=48, \bar{X}_2=5.08; N_3=39, \bar{X}_3=4.46; SSb=146.62; SSw=2250.13; dfb=2, dfw=97; MS(V)b=73.31, MS(V)w=23.20; P > 0.01$) is not significant. So, H_0 is accepted. It means educational qualification doesn't differ in awareness on



aphasia among primary school teachers with respect to section D (assessment and strategies on aphasia). Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in educational qualification with regard to section D. From the mean values it is clear that under graduate primary school teachers are higher in their awareness ($\bar{X}_2=5.08$) than the 12 pass ($\bar{X}_1=1.31$) and post graduate primary school teachers ($\bar{X}_3=4.46$).

The calculated F-value (10.83) with respect to overall awareness scores scores of primary school teacher due to variation in educational qualification ($N_1=13, \bar{X}_1=14.77; N_2=48, \bar{X}_2=23.96; N_3=39, \bar{X}_3=24.85; SS_b=1056.48; SS_w=4729.31; df_b=2, df_w=97; MS(V)_b=528.24, MS(V)_w=48.76; P \leq 0.01$) is significant. So, H_0 is rejected. It means educational qualification

differs in awareness on aphasia among primary school teachers due to variation in educational qualification. Therefore, there is a significant difference in awareness on aphasia among primary school teachers due to variation in educational qualification. From the mean values it is clear that post graduate primary school teachers are slightly higher in their awareness ($\bar{X}_3=24.85$) than the under graduate primary school teachers ($\bar{X}_2=23.96$) and much higher in their awareness than the 12 pass primary school teachers ($\bar{X}_1=14.77$).

Objective-7: To find out significant difference if any in awareness on aphasia among primary school teachers due to variation in experience.

Hypothesis -6: There is no significant difference in awareness on aphasia among primary school teachers due to variation in experience.

Table-9: Table 4.5: Showing Mean, $SS(V)_b, SS(w)_w, MS$ and F-values of awareness on Aphasia among primary school teachers with respect to teaching experience

Dimensions	Variables	Sub categories	N	Mean	Sources of variance	Sum of squares	df	Mean squares	F-values	
Section A	Experience	Below 11 years	11	62	10.54	Between groups	54.52	2	27.26	2.99
		11 to 20 years	20	25	8.65					
		Above 20 years	20	13	9.53	Within groups	885.59	97	9.13	
Section B	Experience	Below 11 years	11	62	7.04	Between groups	2.53	2	1.27	0.32
		11 to 20 years	20	25	6.95					
		Above 20 years	20	13	6.94	Within groups	384.99	97	3.97	
Section C	Experience	Below 11 years	11	62	1.93	Between groups	7.20	2	3.60	2.06
		11 to 20 years	20	25	2.05					
					Within	169.80	97	1.75		

4050



		Above 20 years	20	13	2.65	groups				
Section D	Experience	Below 11 years	11	62	4.89	Between groups	31.81	2	15.91	0.65
		11 to 20 years	20	25	20.86					
		Above 20 years	20	13	3.59	Within groups	2364.94	97	24.38	
Overall awareness scores	Experience	Below 11 years	11	62	25.07	Between groups	168.17	2	84.09	1.27
		11 to 20 years	20	25	20.86					
		Above 20 years	20	13	22.71	Within groups	6401.62	97	65.99	

The calculated F-value(2.99) with respect to section A due to variation in experience ($N_1=62$, $\bar{X}_1=10.21$; $N_2=25$, $\bar{X}_2=8.48$; $N_3=13$, $\bar{X}_3=9.38$; $SSb=54.52$; $SSw=885.59$; $dfb=2$, $dfw=97$; $MS(v)b=27.26$, $MS(v)w=9.13$; $P \leq 0.01$) is not significant. So, H_0 is accepted. It means experience doesn't differ in awareness on aphasia among primary school teachers with respect to section A. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in experience with regard to section A (concept of aphasia). From the mean values it is clear that below 11 years experience primary school teachers are higher in their awareness ($\bar{X}_1=10.21$) than between 11 to 20 years experience ($\bar{X}_2=8.48$) and above 20 years experience primary school teachers ($\bar{X}_3=9.38$).

The calculated F-value (0.32) with respect to section B due to variation in experience ($N_1=62$, $\bar{X}_1=7.10$; $N_2=25$, $\bar{X}_2=6.72$; $N_3=13$, $\bar{X}_3=7.00$; $SSb=2.53$; $SSw=384.99$; $dfb=2$, $dfw=97$; $MS(v)b=1.27$, $MS(v)w=3.97$; $P > 0.01$) is not significant. So, H_0 is accepted. It means experience doesn't differ in awareness on aphasia among primary school teachers with

respect to section-B. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in experience with regard to section-B (characteristics of aphasia). From the mean values it is clear that below 11 years experience primary school teachers are slightly higher in their awareness ($\bar{X}_1=7.10$) than between 11 to 20 years experience ($\bar{X}_2=6.72$) and above 20 years experience primary school teachers ($\bar{X}_3=7.00$).

The calculated F-value (2.06) with respect to section C due to variation in experience ($N_1=62$, $\bar{X}_1=1.95$; $N_2=25$, $\bar{X}_2=2.12$; $N_3=13$, $\bar{X}_3=2.77$; $SSb=7.20$; $SSw=169.8$; $dfb=2$, $dfw=97$; $MS(v)b=3.60$, $MS(v)w=1.75$; $P > 0.01$) is not significant. So, H_0 is accepted. It means experience doesn't differ in awareness on aphasia among primary school teachers with respect to section C (causes of aphasia). Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in experience with regard to section C. From the mean values it is clear that above 20 years experience primary school teachers are slightly higher in their



awareness ($\bar{X}_3=2.77$) than below 11 years experience ($\bar{X}_1=1.95$) and between 11 to 20 years experience primary school teachers ($\bar{X}_2=2.12$).

The calculated F-value (0.65) with respect to section D due to variation in experience ($N_1=62, \bar{X}_1=4.79$; $N_2=25, \bar{X}_2=3.68$; $N_3=13, \bar{X}_3=3.54$; $SSb=31.81$; $SSw=2364.94$; $dfb=2$, $dfw=97$; $M.S(v)b=15.91$, $MS(v)w=24.38$; $P > 0.01$) is not significant. So, H_0 is accepted. It means experience doesn't differ in awareness on aphasia among primary school teachers with respect to section D (assessment and strategies on aphasia). Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in experience with regard to section D. From the mean values it is clear that below 11 years experience primary school teachers are higher in their awareness ($\bar{X}_1=4.79$) than between 11 years experience ($\bar{X}_2=3.68$) above 20 years experience primary school teachers ($\bar{X}_3=3.54$).

The calculated F-value (2.06) with respect to overall awareness scores due to variation in experience ($N_1=62, \bar{X}_1=24.05$; $N_2=25, \bar{X}_2=21.00$; $N_3=13, \bar{X}_3=22.69$; $SSb=168.17$; $SSw=6401.62$; $dfb=2$, $dfw=97$; $M.S(v)b=84.09$, $MS(v)w=65.99$; $P > 0.01$) is not significant. So, H_0 is accepted. It means experience doesn't differ in awareness on aphasia among primary school teachers with respect to overall awareness scores. Therefore, there is no significant difference in awareness on aphasia among primary school teachers due to variation in experience. From the mean values it is clear that below 11 years experience primary school teachers are higher in their awareness ($\bar{X}_1=24.05$) than between 11 years experience ($\bar{X}_2=21.00$) above 20 years experience primary school teachers ($\bar{X}_3=22.69$).

Conclusion:

Aphasia is an emerging area in the field of Specific Learning Disability (SLD). Most of the studies on aphasia have been conducted by the western countries and not much research work

has been undertaken in India. There is hardly any presence of research and study on aphasia in Arunachal Pradesh which reflects the unawareness among the general masses. Effort has to be made to spread awareness on aphasia among the common people since it affects individuals and families and the society in general. Further, the study can be attempted by incorporating various other tools and sampling techniques. The study can also be incorporated by adopting 'case studies' which might also require assistance of professional linguists. Aphasia affects a person's ability to communicate and thus has a profound effect on learning and acquiring knowledge. The teacher has a challenge to devise methods to make his/her teaching simple and comprehensible. The challenge also lies with the aphasic students to understand the teachings and maintain a pace with the class. The aphasic students find it hard to express their views and in acquiring normal information which could impact their education. Aphasia affects the normal life of many individuals and families. The aphasic community does not seek sympathy but empathy and only by having a basic understanding about aphasia we may restore the rightful and delightful life.

References:

1. American Speech-Language-Hearing Association. (2014). *Clinical topicsm: Aphasia*. <http://www.asha.org/practice-Portal/Clinical-Topics/aphasia/>.
2. Abha, G., & Gaurav, S. (2011). Understanding Aphasia in a Simplified Manner. *JICM*, 12(1), 32-37.
3. Bakheit, A.M.O., Shaw, S., Barrett, L., Wood, J., Carrington, S., Griffiths, S., Searle, K., Koutsi, F. (2007). A prospective, Randomized, Parallel Group, Controlled Study of the Effect of Intensity of Speech and Language Therapy on Early Recovery from Post Stroke Aphasia. *Clinical Rehabilitation*, 21(1), 885-890.



4. Drummond, S.S. (2006). *Neurogenic communication disorders: Aphasia and cognitive communication disorders*. Charles C.Thomas Publisher.
5. Hillis, A.E. (2007). Aphasia: Progress in the last quarter of a century. *Neurology*, 69 (2), 200-213.
6. Parr, S. (2007). Living with severe aphasia: Tracking social exclusion. *Aphasiology*, 21(1), 98-123.
7. Mackie, N., & Damico, J.S. (2007). Access and social inclusion in aphasia: interactional principles and applications. *Aphasiology*, 21(1), 81-97.
8. National Institute of Deafness and other Communication Disorders. (2008). *NIDCD Fact Sheet: Aphasia*. <http://www.nidcd.nih.gov/health/voice/pages/aphasia>.
9. Tesak, J., & Code, C. (2008). *Milestones in the history of aphasia: Theories and protagonists*. Psychology Press.
10. Van der Gaag, A. (2005) Therapy and support services for people with long term stroke and aphasia and their relatives: a six-month follow up study. *Clinical Rehabilitation*, 19(1), 372-382.

4053

