A Comparison on the Span of Attention with Meaningful and Non-Meaningful Words

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Abstract : The present research work intends to compare in the form of the study on the span of attention with meaningful words and non-meaningful words of psychological test Span of Attention so far as the psychological test and practical of Educational Psychology paper of B.Ed. curriculum in the Universities of Chhattisgarh state is concerned with special reference to Teacher Institutions of Raipur District taking one teacher education institution having 100 samples with purposive sampling technique in accordance with normative research method is meant for analysis and interpretation of result to achieve the comparison on said variables with experiments in Laboratory situation to reach the destination.
Keywords:- Span of Attention, Meaningful words, Non-meaningful words.

I. INTRODUCTION

1.1 BACKGROUND OF THE STUDY:-

The term 'span of attention' refers to the numbers of object which can be grasped in one short presentation. Sir William Hamilton (1959) was the first to carry experimental study in this field. Later on serial studies were carried on revealing significant facts. Dallerback (1929) studied the span of attention for dots, words, figures and colors of found them to be 8,8,7,9, 3.9 and 3.0 respectively.

Attention is defined as the process which compels the individuals to select some particular stimulus according to his interest and attitude out of the multiplicity of stimuli present in the Environment. Thus in short it is the selective activity of consciousness as a process of getting an object of thought clearly before the mind.

Span of attention actually tells us that how many things can exist in the focus of consciousness at one time in an individual. The span of Visual apprehension is observed through the instruments named Tachistoscope.

Tachistoscope is an apparatus designed to expose objects for a brief space of time. A subject is given a momentary glance from $1/5^{th}$ to $1/10^{th}$ of a second on regular or irregular groups of dots or letter and is required to tell how many he had observed. This instrument was manufactured by Hamilton and was first used by Whipple.

Tachistoscope are of four type:-

1. Tall Tachistoscope
2. Rotatory Tachistoscope
3. Pendulum Tachistoscope
4. Camera Tachistoscope

1.2 TYPES OF ATTENTION:-

1. **Analytical Attention**:- When our attention is diverted towards the analysis of problem and to find out the prospective for that occurring presently.
2. **Habitual Attention:-** This type of attention is determined by habits.
3. **Ideational Attention:-** When the attention is diverted towards some image or status or structure selected to object.
4. **Involuntary Attention:-** Here the attention is diverted suddenly toward the stimulus, It hinders the process of goal seeking sometimes but not always. Ex- attention is attracted to a song while studying.
5. **Voluntary Attention:-** when the attention is diverted willingly to an object.

1.3 DETERMINATION OF ATTENTION:-

The determinants of attention can be categorized as internal and external.
External determinants of span of attention are-
[1] Nature of stimulus
[2] Intensity of stimulus

[3] Location of stimulus
[4] Contrast of stimulus
[5] Change of stimulus
[6] Isolation of stimulus
[7] Duration of stimulus
[8] Movement of stimulus
[9] Repetition of stimulus

Internal determinants of span of attention are:-
[1] Interest
[2] Basic drives
[3] Mental set
[4] Aim
[5] Meaning
[6] Habit
[7] Disposition and Temperament
[8] Past experience
[9] Emotion
[10] Social motives

1.4 OPERATIONAL MEANING:
1. **Span of Attention**- The term 'span of attention' refers to the numbers of object which can be grasped in one short presentation.
2. **Meaningful Words-** Meaningful words are those words which are nothing but the constitution of one or more than one letter of English alphabet which provide complete meaning. The words refer to these words which are written on the card and used in tachistoscope.
3. **Non-Meaningful Words-** Non-Meaningful words are those words which are nothing but the constitution of one or more than one letter of English alphabet which does not provide any meaning. The words refers to these words which are written on the card and used in tachistoscop

II . Objectives And Hypothesis

2.1 OBJECTIVES OF THE STUDY:-
-To measure the span of attention of the pupil teachers with the means of meaningful and non-meaningful words.

2.2 HYPOTHESIS OF THE STUDY:-
The span of attention for meaningful words is more than that of Non-meaningful words.

III. Methodology Of The Study:

3.1 POPULATION OF THE STUDY:-
Present research work covers all the pupil teachers (B.Ed.) students of all the Teacher education institution of Raipur district (C.G.)

3.2 SAMPLE OF THE STUDY:-
Researchers selected 100 students particularly one college as sample with purposive sampling technique to conduct this research work.

3.3 METHOD OF THE STUDY:-
Normative cum experimental method in psychological laboratory is followed to complete this research work.

3.4 TOOLS AND TECHNIQUES OF THE STUDY:-
Tachistoscope, cards of meaningful words and nonsense words in 3 sets each. Each cards of each set will contain meaningful words and nonsense words. The number of each word will be increasing order beginning with alphabet and ending with 12 alphabets.

3.5 VARIABLES:-
1. **Independent variables** – Cards of meaningful and non meaningful words.
2. **Dependent variable** – Subject's response in different trials.

3.6 CONTROL:-
1. The environment was peaceful and appropriate for experimentation.
2. The distance between the subject and screen was maintained about one foot.
3. In each attempt the card was shown only after the shutter was connected with………
4. After the completion of showing meaningful words, 5 minutes rest was given to subject.

3.7 INSTRUCTIONS:-
1. Get prepared when ready signal is given.
2. As soon as say "yes" focus your attention on screen on which you will see some words.
3. Whatever you see you report it immediately.

3.8 Procedure:-
1. Good support was found with the subject and he was made to sit comfortably.
2. After connecting with the screen a card of two words first shown.
3. The subject response was noted in the result table similarly all the cards were shown.
4. When the subject failed to response exactly to the first set, the second set of another card carrying same alphabet was shown. When he failed in the second set, third set of another carrying same number of alphabets was shown.
5. When the subject failed to response to all three cards having same numbers of alphabets the experiment was stoped.

3.9 OBSERVATION

When the subject was experimentally one observed at first subject to too much interest in the first three or four cards then he became nervous in saying words. He was saying meaningful word easily but he could not speak non-meaningful word easily.

IV. Analysis And Interpretation

4.1:-

TABLE:- 1 OBSERVATION TABLE – 1
MEANINGFUL WORDS

S.NO.	MEANINGFUL WORDS	WORD REPEATED	RESULT	PERCENTAGE %
1.	GO	GO	✓	
2.	WE	WE	✓	
3.	YOU	YOU	✓	
4.	SEE	SEE	✓	
5.	CAT	CAT	✓	
6.	LOVE	LOVE	✓	
7.	GOOD	GOOD	✓	
8.	WATER	WATER	✓	
9.	MONEY	MONEY	✓	
10.	APPLE	APPLE	✓	75 %
11.	CENTRE	-	X	
12.	NATION	NATION	✓	
13.	PALACE	-	X	
14.	ARRANGE	ARRANGE	✓	
15.	REQUEST	REQUEST	✓	
16.	PICTURE	PICTURE	✓	
17.	BUILDING	BILDING	X	
18.	RESEARCH	RESEARCH	✓	
19.	KINDNESS	KINDNES	X	
20.	BEAUTIFUL	BEAUTIFUR	X	

TABLE:- 2 OBSERVATION TABLE – 2
MEANINGFUL WORDS

S.NO.	MEANINGFUL WORDS	WORD REPEATED	RESULT	PERCENTAGE %
1.	SK	SK	✓	
2.	KN	KN	✓	
3.	QTB	QTB	✓	
4.	CFJ	CFJ	✓	
5.	DFRM	DFRM	✓	
6.	KQWC	KQWC	✓	66.67 %
7.	DMSY	DMSY	✓	
8.	MCFHJ	MCFHJ	✓	
9.	ZHNQF	ZHNOF	X	
10.	CDQZH	CDMZH	X	
11.	BLSZKR	BLSZMKP	X	
12.	DNVFMT	DNVFNT	X	

CALCULATION

A.

1. Percentage of meaningful words:-

$$\frac{\text{Words shown} - \text{words correctly repeated}}{\text{Words shown}} \times 100$$

$$= \frac{20-15}{20} \times 100 = 25$$

2. Span of attention in meaningful words:-

$$= 100-25 = 75$$

B.

1. Percentage of meaningless words:-

$$\frac{\text{Words shown} - \text{words correctly repeated}}{\text{Words shown}} \times 100$$

$$= \frac{12-8}{12} \times 100 = 33.33$$

2. Span of attention in meaningless words:-

$$= 100-25 = 75 = 66.67$$

4.2 RESULT AND DISSCUSSION

The subject was able to read exactly to all four alphabet of non-meaningful words when the card containing three or four alphabet were shown of non-meaningful syllabus, the response were correct the result was three or four respectively. But when the card containing five non-meaningful syllables five were shown all the responses were wrong and so the result for five non-meaningful syllables was zero. When the card of meaningful words was shown the subject responded to all the words was shown. The subject responded to all the cards excepting the last two alphabets. But the subject responded when the tenth card was shown for second time subject failed to respond for all the three consecutive time and researchers stop the experiment with meaningful word. The result go obtained shows that span of attention for meaningful word is more as compare to that of non-meaningful word. Thus the span of attention for non-meaningful word is three. On the basis of other experiments it is confirmed that the span of attention for meaningful word is more as compare to non-meaningful word. So the hypothesis i.e. Span of attention for meaningful word is more than that of non-meaningful word is verified on the basis of obtained result percentage of meaningful word is equal to 75 and the percentage of meaningless word is 66.

Subject was in tensed situation before test he was bit released when he read the first word. He kept all the attention of the window of tachistoscope when first test of meaningful word completed he was eager to

know how much word he had read correctly. He remain in tension completing the test of meaningless word subject found the test interesting.

V.   Conclusion

1. Knowing about the span of attention suggestion should be given to increase it by different method.
2. The students can be divided in groups knowing about the span of attention of the students for teaching learning situation.
3. Teaching materials can be prepared more better which can increase the span of attention they should interesting an attractive so that it may attract the attention.

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