3.1 Introduction

Guilford (1967) argued against the concept of a single general intelligence factor proposed by Spearman, Burt, and Vernon. He also disagreed with Cattell and Horn's notion of a small group of general abilities (Guilford 1980). Instead, he posited 120 distinct intellectual abilities representing the structure of intellect. Guilford organized these factors along three dimensions that interact to determine different specific factors. The three dimensions consist of five types of mental operations, four types of content areas in which to perform the mental operations, and six products resulting from the application of different mental operations to different content areas. Each intellectual ability results from a unique combination of some mental operation being applied to some content area and resulting in some product. These dimensions do not represent higher order factors but simply provide an organizational framework for Guilford's structure-of-intellect theory. Guilford has attempted to create individual tests to specifically measure each of his posited 120 factors (Guilford and Hoepfner 1971). Although it has not been adequately validated empirically Guilford's structure-of-intellect theory has led to the development of many educationally appropriate measures, particularly in the area of creativity.
3.2 Guilford’s Structure of Intellect Model

To organize intellectual factors, identified by factor analysis or simply hypothesized, Guilford (1967) designed a structure of intellect (SI) model. This model was essentially conceived to serve the heuristic function of generating hypotheses regarding new factors of intelligence. The placement of any intellectual factor within this nonhierarchical model is determined by its three unique properties: its operation, its content, and its product.
Figure - 3.1: Guilford’s Structure of Intellect Model

(6 x 4 x 5 three Dimensional Model)
Figure 3.2: Cross-sectional Analysis of Guilford’s SI Model

<table>
<thead>
<tr>
<th>OPERATIONS</th>
<th>CONTENTS</th>
</tr>
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<tbody>
<tr>
<td>Cognition</td>
<td>Evaluation</td>
</tr>
<tr>
<td>Memory</td>
<td></td>
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<tr>
<td>Divergent Production</td>
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<td>Evaluation</td>
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<tr>
<th>PRODUCTS</th>
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<tbody>
<tr>
<td>Evaluation “E”</td>
<td>Evaluation “E”</td>
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<tr>
<td>Units</td>
<td>Classes</td>
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<tr>
<td>Classes</td>
<td>Relations</td>
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<td>Relations</td>
<td>Systems</td>
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<td>Systems</td>
<td>Transformations</td>
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<td>Transformations</td>
<td>Implications</td>
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<thead>
<tr>
<th>Evaluation “E”</th>
<th>Evaluation “E”</th>
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<tbody>
<tr>
<td>FU</td>
<td>ESU</td>
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<td>ESU</td>
<td>EMU</td>
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<td>EMU</td>
<td>EBU</td>
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<thead>
<tr>
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<td></td>
<td>Memory “M”</td>
</tr>
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<td></td>
<td>Divergent Production “D”</td>
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<th>Expanded Figures</th>
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</tbody>
</table>

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Contents: Broad classes or types of information discriminable by the organism.

Four types of contents are:

Figural (F): Information in concrete form, as perceived or as recalled possibly in the form of images. The term "figural" minimally implies figure-ground perceptual organization. Visual spatial information is figural. Different sense modalities may be involved e.g., visual kinesthetic.
Symbolic \((S)\): Information in the form of denotative signs, having no significance in and of themselves, such as letters, numbers, musical notations, codes, and words, when meanings and form are not considered.

Semantic \((M)\): Information in the form of meanings to which words commonly become attached, hence most notable in verbal communication but not identically with words. Meaningful pictures also often convey semantic information.

Behavioural \((B)\): Information, essentially nonverbal, involved in human interactions, where awareness or attention, perceptions, thoughts, desires, feelings, moods, emotions, intentions, and actions of other persons and of ourselves are important.

Operations: Major kinds of intellectual activities or processes; things of the organism does with the raw materials of information, information being defined as 'that which the organism discriminates'.

Four operations are:

Cognition \((C)\): Awareness, immediate discovery or rediscovery, or recognition of information in various forms; comprehension or understanding.

Memory \((M)\): Retention or storage, with some degree of availability, of information in the same form in which it was committed to storage, and in connection with the same cues with which it has learned.
Divergent Production (D): Generation of information from given information, where the emphasis is upon variety and quality of output from the same source. Likely to involve what has been called transfer. This operation is most clearly involved in aptitudes of creative potential.

Convergent Production (N): Generation of information from given information, where the emphasis is upon achieving unique or conventionally accepted best outcomes. It is likely the given information (cue) fully determines the response.

Evaluation (E): Reaching decisions or making judgements concerning criterion satisfaction (correctness, suitability, adequacy, desirability, etc.,) of information.

Products: The organization that information takes in the organism's processing of it.

Six different kinds of products are:

Units (U): Relatively segregated or circumscribed items of information having 'thing' character.

Classes (C): Recognized sets of items grouped by virtue of their common properties.

Relations (R): Connections between items of information based on variables or points of contact that apply to them. Relational connections are more meaningful and definable than implications.
**Systems (S):** Organized or structured aggregates of items of information, a complexes of interrelated or interacting parts.

**Transformations (T):** Changes of various kinds, of existing or known information in its attributes, meaning, role, or use.

**Implications (I):** Extrapolations of information, in the form of expectancies, predictions, known or suspected antecedents, concomitants, or consequences. The connection between the given information and that extrapolated is more general and less definable than a relational connection.

### 3.3 Memory Factors

Memory is retention or storage, with some degree of availability, of information in the same form it was committed to storage and in connection with which it was learned.

Memory, like cognition, is a well-known intellectual operation – well known in the sense that it is one of the oldest. Memory is also universally and historically recognized as a primary mental function, but it is something of an enigma in terms of our understanding how it functions in the dynamics of the learning process. We know that the organism is not restricted to the informational field of his immediate awareness, and we know that there are limitations on his ability to retrieve information from past experiences, but we do not know what underlies the retention or what accounts for the limitations. Our understanding is largely restricted to measures of the manifest ability; we have assessed memory in terms of the amounts of information that can be...
reproduced as qualified by the elapsed time from input to retrieval and the mode of reproduction. We have been able to distinguish degrees of long-term (retention) and short-term (immediate) memory in terms of recall (reproduction without overt cues) and recognition (reproduction or selection with overt cues presented). These distinctions have recently been further qualified in terms of the mode of initial decoding (input) of the information. At least with respect to short-term memory the auditory and visual modes of input have been identified as separate abilities (Meeker, 1966). In short, though we know considerably less about the underlying processes, we have made some important distinctions about manifest memory abilities.

This very general outline of the memory abilities has been drawn both to provide perspective for the SOI tests of the memory factors and to suggest resources for applications in the educational system.

First it should be noted, as with cognition, that the SOI does not differentiate within the memory operation in this case, both with respect to mode of input and lapsed time to retrieval. Again, for reasons of practicality in test administration, the majority of SOI research has been confined to short-term memory of visually presented materials, but our use of the concept need not be thus confined. We know, on the basis of other research, that memory can be further differentiated and, being aware of memory's particular saliency in education, we can reasonably assume that these distinctions can profit the school psychologist and the teacher.
It would be hard to overestimate the importance of memory abilities in the education process, especially in terms of the measured achievement, which often stands as a measure of the educational system itself. It is ironic, then, that exploration of memory, and most specifically the remediation of poor memory, has largely been neglected both by planning in curriculum and by research in educational psychology. If anything, the trend has been away from memory training. The traditional method in which all students were required to memorize poems, passages, and lists of facts largely for the sake of memorization is now out of vogue, probably because the tasks were too negatively charged with emotion and frustration to be effective as memory training. While this is sufficient reason for extinction of the practice, we have little in its stead; certainly there are no well-articulated procedures for the identification of memory weakness or memory deficits and their correlations with various subject matters, or for accompanying procedures for remediation. Yet there is nothing in the literature to suggest that memory cannot be approached more directly, that we could not devise (and present in challenging, stimulating fashion) materials which exercise the memory without taxing cognition, that we cannot strengthen an auditory memory deficiency by building on a visual memory proficiency or vice versa. In short, there is strong indication that we have neither explored nor developed some of the most promising avenues in an absolutely essential area of academic learning.
Table – 3.1: Matrix of the Memory Factors

<table>
<thead>
<tr>
<th>Contents</th>
<th>Figural (F)</th>
<th>Symbolic (S)</th>
<th>Semantic (M)</th>
<th>Behavioural (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units (U)</td>
<td>MFU</td>
<td>MSU</td>
<td>MMU</td>
<td>MBU</td>
</tr>
<tr>
<td>Classes (C)</td>
<td>MFC</td>
<td>MSC</td>
<td>MMC</td>
<td>MBC</td>
</tr>
<tr>
<td>Relations (R)</td>
<td>MFR</td>
<td>MSR</td>
<td>MMR</td>
<td>MBR</td>
</tr>
<tr>
<td>Systems (S)</td>
<td>MFS</td>
<td>MSS</td>
<td>MMS</td>
<td>MBS</td>
</tr>
<tr>
<td>Transformations (T)</td>
<td>MFT</td>
<td>MST</td>
<td>MMT</td>
<td>MBT</td>
</tr>
<tr>
<td>Implications (I)</td>
<td>MFI</td>
<td>MSI</td>
<td>MMI</td>
<td>MBI</td>
</tr>
</tbody>
</table>

The Table – 3.1 shows the abilities drawn through combination of operation – memory on four types of contents – figural, symbolic, semantic and behavioural leading to six types of products – units, classes, relations, systems, transformations and implications in each category of content.

3.4 Description of Tests on Memory Abilities

Here we shall list some sample factors, define them and give examples of representative tests.

I. Memory: The Figural Dimension

1. Memory of Figural Units (MFU)

   It is the ability to remember given figural objects.

   i. Reproduction of Designs: Reproduce geometric type designs having had a brief exposure to them. (Ky)

   ii. Map Memory: Select from multiple choices the segment of a map previously studied. (USAF)
2. Memory of Figural Classes (MFC)

i. **Figural Class Recall**: Recall (sketch) the common elements of members of previously studied figural classes.

*Two sample study classes:*

![Sample study classes](image)

*Sample responses:*

![Sample responses](image)

ii. **Object Class Memory**: Recognize whether objects fit into previously studied figural classes.

*Sample study class:*

*Sample test objects:*

![Sample test objects](image)
Sample test objects:

1. [Image of a light bulb]
2. [Image of a fan]

Answers: 1. does not fit the class, 2. Fits the class.

3. Memory of Figural Relations (MFR)

i. Memory for Figural Analogies: Choose completion of a figural analogy consistent with a studies analogy.

Sample study pairs:

```
  :  
  :  
```

Sample test items:

```
\begin{array}{ccc}
  & A & B & C \\
1. & \triangle & \square & : & \square & \square & \square & \square \\
2. & \bigcirc & \triangle & : & \triangle & \triangle & \triangle & \triangle \\
\end{array}
```

ii. Matrix Trend Recall: Complete figural matrices by remembering row and column trends from a previously studied page.

Sample study item:

```
\begin{array}{cccc}
  & \square & \square & \square & \square \\
  & \square & \square & \square & \square \\
  & \square & \square & \square & \square \\
\end{array}
```
Sample test item:

Alternative figures to use:

Completed test item:

iii. Remembering Figural Trends: Recognize which trends among circles have the same relations as studied trends among squares.

Sample studied trends:
Sample test trends:

1. 
2. 
3. 

Answers: 1 and 3 were studied; 2 was not.

4. Memory of Figural Systems (MFS)

I. Memory for a Figural System – Visual (MFS-V)

It is the ability to remember the spatial order or placement of given visual information.

i. Space Memory: Identify the form that was previously exposed in each of five sections within five squares.

ii. Position Memory: Recall the position of a number-word pair approximately four hours after the initial administration of the Number-Word test.

Study Page: 1) SIN – 32; BIN – 72; JIN – 52

Test Page: 1) JIN – 52; SIN – 32; BIN – 72

Study Page:

1. BUN – 26 RUN – 46 FUN – 36
2. BEE – 65 SEE – 15 LEE – 85
3. RED – 38 LED – 37 BED – 34
4. BUY – 27 GUY – 17 FLY – 47
5. BAY – 90 SAY – 60 GAY – 80
Test Page:

1. RUN - ____  FUN - ____  BUN - ____
2. LEE - ____  BEE - ____  SEE - ____
3. LED - ____  BED - ____  RED - ____
4. FLY - ____  BUY - ____  GUY - ____
5. SAY - ____  GAY - ____  BAY - ____

II. Memory for a Figural System – Auditory (MFS-A)

It is the ability to remember auditory complexes of rhythm or melody.

i. Musical Memory: Recognize musical compositions heard earlier.

ii. Rhythm: Recognize patterns of the tape.

5. Memory of Figural Transformations (MFT)

It is the ability to understand that one kind of figural transformation used in a test is a subtraction of given part from a relatively complex figure.

I. Front View Recognition:

Sample test front views:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Answers: 1 and 4 are front views of studied objects; 2 and 3 are not.

6. Memory of Figural Implications (MFI)

It is the ability to recall for learning tasks of the paired-associates type.
II. Memory: The Symbolic Dimension

1. Memory of Symbolic Units (MSU)

It is the ability to remember isolated items of symbolic information, such as syllables and words.

i. Memory for Listed Nonsense Words: Recognize whether or not given nonsense syllables were on a previously studied page

Sample study words: GAJ DOF
Sample test words: 1. DJ 2. GAJ 3. DOF
Answers: 2 and 3 were studied; 1 was not.

ii. Memory for Nonsense Words – Free Recall: Recall three-letter nonsense words presented on a previously studied page.

Sample study words: GAJ DUF NYT
Sample test items:
1. Did KER come before BAS?
2. Did NIK come before GUJ?
3. Did NIK come before BAS?
Answers: 1 – yes; 2 – no; 3 – yes.
iii. Memory for Digital Units: Recognize whether or not given two-digit numbers were previously read aloud

Sample items: Assume that only 71 and 24 had been read.
Sample test items: A. 24  B. 32  C. 71
Answers: A and C were read; B was not.

2. Memory of Symbolic Classes (MSC)

It is the ability to remember symbolic class properties.

i. Memory for Number Classes – Recall: Recall the class properties of groups of three numbers each that were studied on a previous page.

Sample study classes: 5, 10, 25  307, 602, 704,  621, 821, 521
Sample test responses: Contain a zero in the middle; divisible by 5, end in 21

ii. Memory for Nonsense Word Classes: Indicate which of four nonsense words given in each item on a test page represent a class given on a previously studied page.

Sample study classes:

<table>
<thead>
<tr>
<th>NEC</th>
<th>NEP</th>
<th>NEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUZ</td>
<td>GAZ</td>
<td>GYZ</td>
</tr>
</tbody>
</table>

Sample test items:

1. A. GIS  B. GOZ  C. LOZ  D. MOZ
2. A. NOP  B. NAR  C. NER  D. NUP

Answers: 1 – B; 2 – C.

iii. Memory for Word Classes: Indicate whether each of a number of words on a test page represents a class studied on a previous page.

Sample study classes:

<table>
<thead>
<tr>
<th>Iris</th>
<th>Irene</th>
<th>Irving</th>
</tr>
</thead>
<tbody>
<tr>
<td>test</td>
<td>pest</td>
<td>lest</td>
</tr>
</tbody>
</table>

Answers: 2 and 3 belong to studied classes; 1 and 4 do not.

3. Memory of Symbolic Relations (MSR)

It is the ability to remember definite connections between units of symbolic information.

i. Memory for Word-Number Relations: Remember the connections, based on symbolic properties, between words and numbers given in two pairs and then indicate which number from four alternatives is associated with a new word on the basis of remembered connection.

Sample study relations:
dead – 285, read – 785, neck – 412, neat – 419

Sample test items:
1. next A. 312 B. 416 C. 482 D. 498
2. lead A. 682 B. 784 C. 685 D. 786

Answers: 1 – B ; 2 – C

ii. Memory for Name Relations: Remember what kind of last names goes with first names, based on symbolic properties, and on the basis of memory, choose one last name from four alternatives that goes with a given new first name.

Sample study pairs:
Sam Martin Tom McTavish Pam Merton
Robert Redding Rose Reardon Roger Renshaw

Sample test items:
1. Roy A. Rollins B. Revere C. Radford D. Young
2. Tim A. Thompson B. Traver C. Mensch D. Tolman
Answers: 1 – B ; 2 – C

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iii. **Memory for Letter Series**: Recognize the series rule associated with a given letter on a previously studied page.

*Sample study series:*

<table>
<thead>
<tr>
<th></th>
<th>z</th>
<th>ZZ</th>
<th>ZZZ</th>
<th>ZZZZ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XXXXX</td>
<td>XXXX</td>
<td>XXXX</td>
<td>XX</td>
</tr>
</tbody>
</table>

*Sample test items:*

1. A. Z  
   B. ZZZ  
   C. ZZ  
   D. ZZZZZZ  

**Answer**: 1 - C

iv. **Memory for Numerical Relations**: Recall the symbolic relationship between numbers presented in pairs on a previously studied page.

*Sample study pairs:*

<table>
<thead>
<tr>
<th></th>
<th>2 - 8</th>
<th>7 - 13</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18 - 6</td>
<td>24 - 8</td>
</tr>
</tbody>
</table>

*Sample test items:*

1. The second is .............. the first.
2. The second is .............. the first.

**Possible responses**: 1. Six more than; 2. one-third of.

4. **Memory of Symbolic Systems (MSS)**

It is the ability to remember the order of symbolic information.

i. **Memory for Transposition**: Recognize changes in two auditory presentations in the order of two sets of four numbers each.

*Sample test item:*

3871 and 9148 were read for the first time, and 3871 and 1948 for the second time. In which number was there a transposition?

**Answer**: The second group.
ii. **Consonant, Digit, and Nonsense Word Span**: Recall series of consonants, digits, and nonsense words in order after auditory or visual presentation.

*Sample sequences*: G R Z M C Q 2 7 1 8 6 3 gup zar vif caj mof

iii. **Memory for Order of Listed Numbers**: Recognize which of four alternative numbers was presented first in a list of twelve numbers on a previously studied page.

*Sample list*: 9 6 2 7 12

*Sample test items*: Which number in each group came first on the study page?

1. A. 2  B. 6  C. 9  D. 12
2. A. 2  B. 6  C. 7  D. 12

*Answers*: 1 – C; 2 – B.

5. **Memory of Symbolic Transformations (MST)**

It is the ability to remember changes in symbolic information.

i. **Memory for Word Transformations**: Recognize which of two divisions of a large word into two smaller words is the same as that presented on a previously studied page.

*Sample words*: BIND / ARE  EARN / ICE

*Sample test words*: 1. EAR / NICE  2. BIND / ARE

ii. **Memory for Hidden Transformations**: Recognize whether or not words hidden in sentences are formed in the same way they were formed on a previously studied page.

*Sample study items*:

Don’t leap in before you look
You must not burden the teacher.
Sample test items:
1. They load entire trucks.
2. He will stop in the evening.

Answers: 2 has same hidden arrangement; 1 has not.

6. Memory of Symbolic Implications (MSI)

It is the ability to remember arbitrary connections between symbols.


ii. Number-Letter Association: Recall letters arbitrarily associated with numbers upon presentation of the number.

Study associations: 88 - U 67 - K

Sample test items:
1. 67 - ...... 2. 88 - ......

Answers: 1. K; 2. U

iii. Addition Test: Add sets of one- and two-digit numbers.

Sample items:
24 + 25 = 49; 19 + 17 = 36

Sample test items:
1. 36 + 25 = ......
2. 16 + 18 = ......

Answers: 1. 61; 2. 34

iv. Division Test: Divide two- and three-digit numbers by single digits.

Sample items:
864 ÷ 8 = 108; 108 ÷ 3 = 36
Sample test items:
1. 936 $\div$ 9 = ........
2. 125 $\div$ 5 = ........

Answers: 1. 104 ; 2. 25

v. Subtraction and Multiplication Test: Subtract two-digit numbers; multiply two-digit numbers by single digits.

Sample items:
64 - 25 = 39 ; 59 - 27 = 32
28 $\times$ 7 = 196 ; 36 $\times$ 4 = 144

Sample test items:
1. 36 - 25 = ........
2. 57 - 18 = ........
3. 24 $\times$ 5 = ........
4. 45 $\times$ 8 = ........

Answers: 1. 11 ; 2. 39 ; 3. 120 ; 4. 360

III. Memory: The Semantic Dimension

1. Memory of Semantic Units (MMU)

   It is the ability to remember isolated ideas or word meanings.

   i. Picture Memory: Recall names of common objects pictured on a previously studied page.

   Sample study pictures:

   ![Picture of a computer and a lamp]

   Sample responses: Iron, Computer

   ii. Recall Words: Recall words presented on a previously studied page.

   Study page: 1. Banana   Boat   Myna   Tiger   Pearl
2. **Memory of Semantic Classes (MMC)**

It is the ability to remember verbal or ideational class properties.

i. **Classified Information** : Recognize classes similar to those given on a previously studied page.

*Sample class studied*: SILK – WOOL – NYLON

*Sample test classes*:

1. rayon cotton felt
2. snow ice sleet

*Answers* : Class 1 was studied; 2 was not.

ii. **Picture Class Memory** : Indicate whether or not a given two-element class represents the same concept as one given on a previously studied page.
Sample study class:

Sample test classes:

Answers: The first class represents the same concept; the second one does not.

3. Memory of Semantic Relations (MMR)

It is the ability to remember meaningful connections between items of verbal information.

i. Remembered Relations: Complete sentences from alternatives in a manner consistent with previously studied relationships.

Sample studied relation: Diamonds are harder than coal

Sample test item:
Coal is ..............
A. Softer B. blacker C. less valuable D. none of these

Answer: A

ii. Recalled Analogies: Recall missing elements for previously studied incomplete verbal analogies.

Sample analogies studied:
Native : tourist :: resident: ..?.....
Police car : fire engine :: policeman: ..?.....
Sample test items:
1. Policeman: .....................
2. Resident: .....................

Answers: 1. fireman; 2. visitor

4. **Memory of Semantic Systems (MMS)**

It is the ability to remember meaningfully ordered verbal information.

i. **Learned Information**: Reproduce a short essay, with ideas in proper sequence, given several key terms in scrambled order.

ii. **Memory for Test Order**: Indicate whether or not a given test preceded another in a test booklet just completed.

Sample items:
1. Was Alternate Uses before Cartoons?
2. Was Consequences before Related Alternatives?

5. **Memory of Semantic Transformations (MMT)**

It is the ability to remember changes in meanings or redefinitions.

i. **Double Meanings**: Recognize pairs of definitions that were not presented as words with double meanings in sentences previously studied.

Sample study sentences:
She carried food in a paper bag.
The hunter planned to bag a deer

Sample test sentences:
1. John took his lunch in a sack.
   Mother wants to obtain a new chair.

2. He was asked to name the letter after S.
   The beverage can be either hot or cold.

Answers: 1. words were studied; 2. not studied
ii. *Homonyms*: Recognize a definition that matches the definition of the ‘other element’ in a pair of previously studied homonyms.

*Sample study homonyms*:

There is a *hole* in the wall.

He ate the *whole* pie.

*Sample test definitions*:

ENTIRE  A. nut  B. ship  C. hollow space  D. operation

*Answer*: C

6. **Memory of Semantic Implications (MMI)**

It is the ability to remember arbitrary connections between pairs of meaningful elements of information.

i. *Related Alternatives*: Recognize objects that are related to persons’ jobs, based on studying a page of name-job pairs.

*Sample study pairs*:

Smith – bricklayer         Jones – radio announcer

*Sample test items*:

1. Jones A. microphone  B. watch  C. tire  D. brick
2. Smith A. piano  B. microphones  C. brick  D. typewriter

*Answers*: 1. A ; 2. C

ii. *Books and Authors*: Recall probable occupations for given fictitious persons after studying a page of name-book pairs.

*Sample study items*:

Brooks : Pictures I Have Painted

Adams : Great Moments in Baseball
Sample test items:

Adams: ..............
Brooks: ..............

Answers: Adams – baseball player; Brooks – artist


Sample study pairs:
SUCCEED – HEAVY BEVERAGE – NOW PERFECT – WORD

Sample test items:
BEVERAGE – ..............
PERFECT – ..............
SUCCEED – ..............

Answers (in order): Now, word, heavy

IV. Memory: The Behavioural Dimension

1. Memory of Behavioural Units (MBU)

   It is the ability to recall units of expression, such as facial expression or bodily expression.

Sample test item:
Question: In these diagram which number indicates the symbol of stopping sign?

Answer: 4

2. Memory of Behavioural Classes (MBC)

It is the ability to recognize similarity of behavioral information in different expressional modes.

Question: In the above diagrams few diagrams belonging to a same class, classify such diagrams.

Answers: ii, vii, ix – are the scientists

3. Memory of Behavioural Relations (MBR)

It is the ability to recall social relationships.
i. **Matrix Trend Recall**: Complete figural matrices by remembering row and column trends from a previously studied page.

*Sample study item:*

*Sample test item:*

*Alternative figures to use:*

*Completed test item:*
4. Memory of Behavioural Systems (MBS)

It is the ability of recognition of social situation or sequence of social events.

1. Carefully observe the above series of diagram, by remembering them in proper order arrange the following puzzled diagrams in the same order

   Answer (d, c, b, a)

5. Memory of Behavioural Transformations (MBT)

It is the ability to recall either a gesture, a facial expression, a statement, or a whole social situation so that its behavioral significance is changed.

1. To the left-out parts of the following figure choices are given just adjacent to them. Answer them choosing proper one.

   Answer : c
6. Memory of Behavioural Implications (MBI)

It is the ability to draw implications or make recall about what will happen following a given social situation.

Question: Carefully observe the above diagram series. Make the diagram, which matches properly with it from the following answer series.

1.

![Diagram Series]

Answer: c