APPENDIX - I

ACHIEVEMENT TEST
Achievement Test

Name of the student: ________________________ Class: ________
Name of the school: ________________________ Date: ________
Gender: ________________________ Age: ________

INSTRUCTIONS

1. The given achievement test contains 11 questions.

2. There are multiple choice, fill in the blanks, match the column, one word, select the odd one, True-False and short answer type questions.

3. There are multiple choice questions. Four options are given for each question, read the questions and options carefully and mark [✓] to the correct option.

4. Write your answers in the space provided.

5. Read all the questions carefully before answering them.

6. Try to solve all the questions.

Made by
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General Instructions-
1. All the questions are compulsory.
2. Read the questions carefully before answering them.

Q.1 Mark the correct answer for following multiple choice questions. (10)

i. Vegetable peels are-
   a. Household Waste    b. Agriculture Waste
   c. Industrial Waste   d. Commercial Waste

ii. Example of industrial waste is-
    a. Vegetable peel    b. Cadmium    c. Flower    d. Paper

iii. Grasses will come under-
     a. Household Waste   b. Agriculture Waste
     c. Industrial Waste  d. Commercial Waste

iv. Getting good job will come under-

v. Classification of animals into some particular system is known as-
   a. Nomenclature    b. Biodiversity    c. Society    d. Division

vi. Farm animals require proper care and management, this is called-
    A. Cattle Farming   b. Animal Husbandry
    C. Poultry Farming  d. None of above
vii. Motion is a change of -
   a. Speed  
   b. Situation  
   c. Position  
   d. Gravitation  

viii. In vermi composting we use-
   b. Metals & ash.  
   c. Earthworms & Micro organisms.  
   d. Plastic & Polythene.  

ix. To understand the concept of Motion following is the best method-
   a. Classroom Lecture  
   b. Charts  
   c. Film  
   d. Playing Games  

x. Which of the following conditions will give most benefit-
   a. Farmers use high quality seeds, do not adopt irrigation or use fertilizer.  
   b. Farmers use ordinary seeds, adopt irrigation and use fertilizers.  
   c. Farmers use quality seeds, adopt irrigation, use fertilizer and use crop protection measures.  
   d. None of above.  

Q.2 Find out the correct option to fill in the blanks and Mark it.  

   a. Biological fertilizer will be obtained by.............  
      (Composting, dumping, recycling)  
   b. ............ Waste pollutes water, air and soil adversely.  
      (Agriculture, Industrial, Commercial)  
   c. ..........is the example of agriculture waste.  
      (Plastic, Metals, Stem pieces)  
   d. A big reason of waste production is.............  
      (Computerization, industrialization, global warming)  
   e. There are......... nutrients essential for crops.  
      ( 6, 13, 7, 10 )
f. Along with balanced diet also affects health.

(Newspaper, Clothes, Shoes)

Q.3 Match the columns:

<table>
<thead>
<tr>
<th>[A]</th>
<th>[B]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Growing two or more crops</td>
<td>Acute and chronic</td>
</tr>
<tr>
<td>b. Manure and Fertilizers</td>
<td>Bee-Keeping</td>
</tr>
<tr>
<td>c. Honey and wax</td>
<td>Non infectious disease</td>
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<td>d. Classification of Diseases</td>
<td>Good Health</td>
</tr>
<tr>
<td>e. Green house effect</td>
<td>Agriculture</td>
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<tr>
<td>f. Not spread by microbes</td>
<td>Inter- Cropping</td>
</tr>
<tr>
<td></td>
<td>Ozone Layer</td>
</tr>
</tbody>
</table>

Q.4 Write one word for –

a. The nutrients required in large quantity for crops are known as.

b. An increase in the percentage of some gases in the atmosphere would cause the average temperature to increase worldwide and this is called as.

c. High amount of pollutant and hydrocarbons in the atmosphere are responsible for which type of pollution?

d. Which cleanliness is important for individual health?

e. To save crops from pests, what should be used?

f. Virus of which disease can also spread through blood to blood contact with infected people or from an infected pregnant mother to her baby?
Q.5 What do you understand by non uniform motion? (2)

Ans...

Q.6 State any two conditions essential for good health. (2)

Ans...

Q.7 What do you mean by readymade food? (2)

Ans...

Q.8 List any two human activities that you think lead to air pollution. (2)

Ans...

Q.9 What are Micro-Nutrients? (2)

Ans...
Q. 10 Select and mark the odd one. (6)

I. Disease, Good Health, Virus, Bacteria
II. Vermi-compost, Insecticides, Herbicides, Fertilizers
III. CO₂, O₂, Water Vapour, NO₂
IV. Dona-Pattal, Glass, Metal Sheet, Plastic Plate
V. Economic health, Social health, Individual Health, Topper in a Class
VI. Cereals, Poultry Farming, Kharif, Rabi

Q. 11 Say whether the following statements are True or False— (6)

a. Only micro nutrients are required for good crop production.
b. Good health and being disease free are same things.
c. Industries are responsible for water pollution.
d. Manure and fertilizers are the main source of nutrient supply to crops.
e. A car moving on a crowded street is an example of uniform motion.
f. Excessive use of polybags should be banned.

-----------------------------All the best-----------------------------
APPENDIX - II

THINKING SKILL OF IPC TEST
Test of Thinking Skill of Identifying Pros/Cons (IPC)

INSTRUCTIONS

1. The given Thinking Skill test contains 10 questions.

2. There are true/false, fill in the blanks, one word, analyze and short answer type questions.

3. There are multiple choice questions. Four options are given for each question, read the questions and options carefully and mark [✓] to the correct option.

4. Write your answers in the space provided.

5. Read all the questions carefully before answering them.

6. Try to solve all the questions.

Name of the student: ____________________________ Class: _______

Name of the school: _____________________________ Date: _______

Gender: ___________________________ Age: _______

Made by
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School of Education
Q.1 Please give 2 statements from our routine life in which we can think of IPC. (2)
Ans. ........................................................................................................................................
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Q.2 What do you do in the beginning of the thinking process after getting statement-
"Frequent use of mineral water should be avoided"? (2)
Ans. ........................................................................................................................................
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Q.3 List out 2 sentences showing harmful attributes of the given statement-
"We should try to avoid natural food material". (2)
Ans. ........................................................................................................................................
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Q.4 List out 2 sentences showing strength and opportunities of the statement-
"During summer vacation we must go on a tour". (2)
Ans. ........................................................................................................................................
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Q.5 What do you do in the last step of the thinking process after getting statement
"Cutting of the trees is harmful"? (2)
Ans. ........................................................................................................................................
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Q.6 Say whether the following statements are true or false (T/F). (5)

a. For identifying the situation or any given idea, it is necessary to think stepwise.
b. In our routine life, we should not waste our time to get solution after performing the process of thinking.
c. Thinking increases our mental ability.
d. Thinking process should be a part of our learning (school syllabus).
e. Thinking process is a meaningless game of some steps only.

Q.7 Find out the correct option and Mark it. (10)

i. Selecting the sentences giving strength and opportunity is the step followed by
   a. Giving arguments.  
   b. Listing of the sentences giving strength.  
   c. Selecting the harmful statements.  
   d. None of above.

ii. The statement “Plastic is responsible for many kinds of pollution” is showing
    a. Strength of plastic material
    b. Identification of concept
    c. Weakness of plastic material
    d. All of above

iii. The word ‘Cons’ is used for
    a. Positive
    b. Negative
    c. Neutral
    d. Biased

iv. Finally in IPC we arrive at a step
    a. Give argument for justification.
    b. Listing the harmful sentences.
    c. Drawing the boundaries by specifying for the judgment.
    d. Selecting the sentence giving strength.

v. The statement “In routine life we should avoid readymade foods. But sometimes we are put in such a typical condition that no food is available except readymade one. Then we should take them without rigidity in our mind.” is coming under
    a. Sentence giving strength
    b. Drawing boundaries
    c. Sentence showing weakness
    d. Identification of the statement

vi. Learning a thinking process is
    a. Tension
    b. Leisure
    c. Labor
    d. Anxiety
vii. In the beginning of IPC Thinking Skill, which one of the following is important for the concept?
   a. Identification  b. Finalization  c. Comparison  d. Discussion

viii. Thinking is a series of

ix. The statement “By not applying uniform nomenclature among animals, people of different countries will be free to call them according to their own language.” is giving
   a. Pros of nomenclature  c. Cons of nomenclature
   b. Drawing boundaries about nomenclature  d. None of above

x. The word ‘Pros’ is used for

Q.8 Give one word answer for the following statements. (10)
i. The skill in which we learn ‘how to think’ not only ‘what to think’.
   Ans: ............................

ii. Disturbed-ease means being uncomfortable is?
   Ans: ............................

iii. ‘Selection of the more harmful sentence of the concept.’ Name the number of step of thinking process?
   Ans: ............................

iv. Give one example of harmful readymade food material.
   Ans: ............................

v. How many steps are there into the thinking process?
   Ans: ............................

vi. High level of hydrocarbons and pollutants cause visibility to be lower, especially in cold weather when water is also condensed out of air. What do we call it?
   Ans: ............................

vii. Think and give example of a single thing, we use in our day to day life, which requires thinking process before using it.
   Ans: ............................

viii. Diseases where microbes are the immediate causes are called?
   Ans: ............................

ix. Give one example of gas responsible for green house effect.
   Ans: ............................
Q.9 Arrange the following in ascending order on the basis of Thinking Process. (5)
(i) a. Readymade food materials do not contain high nutritive value.
   b. ‘Readymade food material give immediate satisfaction’ is strongest positive sentence.
   c. Readymade food materials are quickly available.
   d. Readymade food material.
   Ans: ............................................
(ii) a. Selecting the more harmful sentences for the statement/concept.
     b. Drawing the boundaries by specifying for the judgment.
     c. Identification of the statement/concept.
     d. Selecting the more applicable sentences for the statement/concept.
     Ans: ............................................
(iii) a. Dona-Pattals are ecofriendly.
     b. Plastic plates are durable.
     c. Plastic plates are not biodegradable.
     d. Dona-Pattal system is better than plastic plate system.
     Ans: ............................................
(iv) a. Relation of crop production with chemical fertilizer.
     b. Definite amount of fertilizer should be used for good quality of crop.
     c. Chemical fertiliser leads to water pollution.
     d. Chemical fertiliser increases crop production at a high rate.
     Ans: ............................................
(v) a. Mobile phone generates harmful radiations.
    b. We remain in contact with our relatives via mobile phones.
    c. Mobile phones should be allowed in schools.
    d. Mobile phones are helpful in critical situations.

Ans: ..........................

Q.10 Analyze the statement using all the stages of thinking process of IPC-

"The classes of the school should be held only for 5 days in a week".  

Ans.................................................................................................................
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---------All the best---------
Reaction scale towards treatment given for the
Development of the Thinking Skill of
Identifying Pros/Cons

Name of the student: ___________________________ Class: _________

Name of the school: ___________________________ Date: _________

Gender: ___________________________ Age: _________

INSTRUCTIONS

1. The given reaction scale is to find out your reactions towards the instructional material.
2. This reaction scale contains 20 statements, each with 5 ratings points -
   a. To a very great extent
   b. To a great extent
   c. To an average extent
   d. To a little extent
   e. To a very little extent
3. Read the statements carefully and tick the [✓] mark in the column in front of the statement according to your choice.
4. Your responses will be kept confidential, so answer honestly.
5. Do not leave any statement unanswered.

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### REACTION SCALE

<table>
<thead>
<tr>
<th>S. No.</th>
<th>STATEMENTS</th>
<th>To a very great extent</th>
<th>To a great extent</th>
<th>To an average extent</th>
<th>To a little extent</th>
<th>To a very little extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I found it interesting to study with instructional material through treatment.</td>
<td></td>
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<td>2</td>
<td>Treatment helps to increase our knowledge.</td>
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<td>3</td>
<td>Treatment helps us to think in a better way.</td>
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<td>4</td>
<td>It was hard to understand the steps of identifying pros/cons (IPC) through treatment.</td>
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<td>5</td>
<td>Treatment helps to take right decision.</td>
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<td>6</td>
<td>The numbers of examples in treatment were sufficient to give information about IPC.</td>
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<td>7</td>
<td>Treatment gives freedom of learning by thinking.</td>
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<td></td>
<td>After studying through instructional material, I am able to identify pros/cons of the concept.</td>
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<td>9</td>
<td>It was boring to understand the concept through treatment.</td>
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<td>10</td>
<td>Treatment was helpful in the development of ability of giving arguments for the selection of any statement.</td>
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<tr>
<td>11</td>
<td>Treatment develops the ability of critical evaluation.</td>
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<td>12</td>
<td>I found the treatment useless for the development of thinking skill of IPC.</td>
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<td>13</td>
<td>I would like to study all the concepts through thinking process explained in the treatment.</td>
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<td>14</td>
<td>It was a new experience of studying through treatment on thinking process.</td>
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<td>15</td>
<td>Treatment was effective to clarify all the stages of IPC.</td>
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<td>16</td>
<td>After studying through treatment I felt it's important to understand ‘How to think’ than ‘What to think?’</td>
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<td>17</td>
<td>There is no use of IPC Thinking Skill in our day to day life.</td>
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<td>18</td>
<td>IPC Thinking Skill helps in decision making.</td>
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<td>19</td>
<td>We should impart Thinking skill in our education system as a part of our curriculum.</td>
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<td>20</td>
<td>I found the subject easier to understand via IPC Thinking Skill through treatment.</td>
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<td>8</td>
<td>After studying through instructional material, I am able to identify pros/cons of the concept.</td>
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</tbody>
</table>
APPENDIX – IV

LESSON PLAN
Lesson Plan for

Thinking skill of Identifying pros/cons IPC

In the present study Lesson plan is a layout of teaching learning process, planned in advance, by the researcher, about the learning environment, which researcher will create during the treatment for the development of Thinking Skill of Identifying Pros and Cons. In the present lesson plan teacher used readymade food packets of ‘Maggi and Bhel’ as instructional material to develop thinking skill of Identifying Pros/Cons among students.

Details about lesson plan

Name of the thinking skill to be focused: Identifying Pros/Cons (IPC)
Name of the subject: Science
Name of the topic: Ready made Food Material
Age Group: 12+ year’s students of standard IX

Objectives

The objectives are divided into two parts.
1) Related to subject aspects of the lesson.
   i) The learners will be able to identify the opportunities and threats of the topic “Readymade Food Material.”
   ii) The learners will be able to find out the pros and cons of the topic “Ready made Food Material”.

2) Related to thinking skill aspect of the lesson
   i) The learners will be able to list out the positive attributes of the element.
   ii) The learners will be able to list out the negative attributes of the element
   iii) The learners will be able to identify the strengths and weakness of the elements.
   iv) The learners will be able to identify the opportunities and threats of the elements.
   v) The learners will be able to find out the arguments in favor of the element.
   vi) The learners will be able to find out the arguments against the element.
   vii) The learners will be able to use a common sense approach to identify the placement of element.
   viii) The learners will be able to find out the ‘need’ of the topic ‘Ready made Food Material.’
ix) The learners will be able to judge the importance and intensity or the effectiveness of the topic.

x) The learners will be able to draw the boundaries of the pros/cons of the element.

**Lesson Transaction for IPC**

The transaction of Identifying Pros/Cons Thinking Skill’s lesson is as follows

<table>
<thead>
<tr>
<th>Objective</th>
<th>Activities of Teacher</th>
<th>Activities of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes we find difficulty in learning a particular topic. It cannot be made easy or interesting for the students. In science ‘Ready made Food Material’ is an example of it.</td>
<td>The teacher will give outline for the subject to be discussed and the way in which it is to be taught.</td>
<td>The children will try to understand what the teacher says.</td>
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<tr>
<td>The commonsense approach is to be adopted here. In this approach series of little steps are given. The first step of listing of the statement is positive statements will be carried out. In this way the students will be allowed to think about the positive attributes of the given concept or statement.</td>
<td>Now I give you one statement. You people will have to give me as many sentences which give me the good results from it - “We should avoid the readymade food.” For the statement teacher will get list of sentences from the students. This list will show only good or positive side of the statement.</td>
<td>Then first step of the identifying skill will be applied. They will give list of the sentences as follows. 1. These foods are always tasty. 2. They are quickly available. 3. These foods give us immediate satisfaction. 4. Not necessary to carry big Luggage while traveling. 5. We do not have to prepare. 6. Sometimes it is cheap.</td>
</tr>
</tbody>
</table>
Showing the negative side or harmful sentences for future are to be listed.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Now in this step a teacher will tell the students to stop their positive thinking and allow them to give negative side and possible hazards of the readymade food items. The teacher will list out them to show the negative attributes. A teacher will encourage the students to think and to give more and more sentences to list out. During the step the teacher will make the children alert for giving only one sided statement.</td>
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<tr>
<td>Students will give the list</td>
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<tr>
<td>1. We have to pay.</td>
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<td>2. It may cause belly pain or some infection.</td>
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<td>3. It may cause some diseases.</td>
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<td>4. Ladies become lazy.</td>
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<td>5. It does not contain high Nutrition value.</td>
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<td>6. There may be lack of cleanliness.</td>
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<td>7. It may create some digestive system disorders.</td>
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<td>8. Ultimately it affects our health adversely.</td>
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<tr>
<td>9. It is the most costly in general. We have to depend on somebody for food items.</td>
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</table>

Selection of important or more applicable sentences from the list of the positive or favorable sentences

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<thead>
<tr>
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<tbody>
<tr>
<td>In this step the teacher will discuss with the students. The students will be allowed to find out some important statements from the first list.</td>
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<tr>
<td>To select more appealing sentences the students will read the list and think over the sentences one by one.</td>
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</table>

Find out more harmful or hazardous statements from the list given by them.

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<tbody>
<tr>
<td>The teacher will allow the students to look at another list of the attributes listed by themselves showing harmful or negative effects for the given statements and then the students will be allowed to select more harmful statements.</td>
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</tr>
<tr>
<td>The students will read the list again. Now they will think over all the sentences one by one. Then they will select more harmful or more effective sentences.</td>
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</tbody>
</table>
Here the teacher will give training to the students to give logical arguments for each sentence in favor of the given statements.

The teacher will try to get the justification from the students. For justification she will encourage the students to give the logical arguments in favor of the statement.

The students will discuss with the help of their teacher about the positive sentences which were selected by themselves in the third step of this process e.g. “These food will give immediate satisfaction” is selected because hunger is important to everything else.

In this step the students are trained to think over more negative sentences. Then they will be allowed to argue logically for the same.

The teacher will ask why the students selected these particular sentences as more harmful. The teacher will try to get logical arguments from the students for selecting particular sentences.

The students will discuss to give the logical arguments for the harmful sentence “Ultimately it affects our health adversely”. Because due to our body we can do all worldly activities and stout body refers to good health.

In this step the students themselves will be able to identify the positive and negative attributes manually.

The teacher will write down the sentences with the arguments on the blackboard and then the students will be allowed to draw the boundaries for making judgments.

Like- positive sentence- “These food will give immediate satisfaction”

Negative sentence- “Ultimately it affects our health adversely”.

The students will see both the sides with logical arguments. Then they will try to compare the pros and cons. By the comparison they will decide the line of demarcation for taking ready made food.

Like- “In routine life we should avoid ready made foods. But sometimes we are put in such a typical condition that no food is available except ready made one. Then we should take them without rigidity in our mind.”
In the similar way lesson plans were prepared by the researcher related with the content of the subject. Some statements given to analyze through IPC are as follows:

- Indian traditional system of serving food in community programs in ‘Donas’ & ‘Pattals’ was better than present ‘Plastic Plates’ system.
- News paper is a waste material.
- We should use bicycle in place of motorbike.
- Use of poly bags should be banned.
- Vegetable peels should be used as food material.
- Public cleanliness – classification of waste material
- Vegetable peels should be used as food material.
- Industries should be banned.
- Vermicompost should be used than chemical fertilizer.
- Tour – during summer vacation we should go on a tour for social health.
- High amount of fertilizer is good for high crop production.
- Use of pesticide should be banned in agriculture.
- Nomenclature- should apply or not?
- Only balanced diet is enough for good health, no effect of environment.
- Individual Health- one should not waste one’s time in social gathering.
- Only good economic conditions are enough for good health.
- Being disease free is a symbol of good health.
- Water pollution- Do not use fertilizer and pesticides.
- Growing vegetables in our garden is alternative to avoid diseases.
- Animal husbandry - Poultry forming should be banned.
- Readymade food materials.
- Playing games only is better way to explain motion.
- Frequent use of mineral water should be avoided.
- Cutting of trees is required.
- Air pollution- Only public vehicles should be allowed on roads.
- Human being is responsible for Green House Effect.

These types of statements were given to the students to analyze through Identifying Pros/Cons along with 3D objects, charts, cards, module, short films etc; according to the requirement of the topic.
APPENDIX - V

MODULE
Dear students, welcome to the world of teaching, learning process. 😊 😊

Till now you were totally dependent on your teacher or instructor. They gave you proper knowledge and guidelines, but in spite of that sometimes students, you feel that the subject taught or the content remains unclear, vague to you. Beside old teaching method adopted by your teacher could not satisfy your quest for the given topic. To ward off or to remove this genuine problem, self instructional material that is module has been developed so that you can get self instruction according to your interest, speed and time.

This module is developed on the basis of identifying pros/cons thinking skill (IPC). In the first part of the module brief description about IPC is given and the second part of the module deals with content (Health and diseases) on the basis of IPC.

Part [I]: Thinking Skill of Identifying Pros/Cons

1.0.0 Introduction of Thinking Process

A thinking process is a relatively complex sequence of thinking skills. Some time consuming cognitive operations such as concept formation, problem solving, and composing, all of which employ one or more core thinking skills come under thinking process. Thinking skills are relatively specific cognitive operations that can be considered the "building blocks" of thinking. It can be understood by the following picture.
1.1.0 Thinking

Thinking is behaviour which is often implicit and hidden and in which symbols (images, ideas and concepts) are ordinarily employed.

Thinking is a series of symbolic processes. It makes use of symbols, precepts, images and concepts. The symbols either represent or stand for objects or events in the environment. Images are either sensory or verbal. Therefore thinking involves representative process.

1.2.0 Identifying Pros/Cons:

This is a micro skill. This skill helps the children to identify good and bad or positive and negative features of a given concept, element, idea, situations, phrase or a statement.

1.2.1 Meaning of Identifying pros/cons:

This skill is entitled as Identifying the Pros/Cons (IPC). It means a skill to judge the positive and negative attributes of a given concept or idea. IPC has 3 words involved in its body. They are (a) Identifying (b) Pros and (c) Cons. The details about them are given here under abbreviation of IPC.

1.2.2 Components of Identifying Pros/Cons:

- The word ‘Identifying’ carries connotation like recognizing, labelling, discriminating, demarcating and so on. These have special meaning but we have derived the use of all other terms accept the one chosen for the same.
- The word ‘Pros’ is not actually a dictionary word. As a matter of fact pros and cons are used as proverb or one phrase. Here the clarity of the meaning of pros is carried out by the words like strength, favour, profit, positiveness, inside, goodness etc. Actually speaking these words have their own meanings, but the list of all these words will be able to make the sense clear.
- The word ‘Cons’ also is not a dictionary word. It is always used with the pros to make a phrase ‘pros and cons’. To get an overall impression we can use the words like weakness, loss, against, negatives, badness and limitations. Of course these words have their own meaning but here the use of other terms is avoided accept the one chosen for the purpose. ‘Cons’ is also used for consequences.
1.2.3 Operational steps of Identifying Pros/Cons:

This micro skill is a process having a series of steps for the mental development of a child. A series of steps necessary for this procedure are presented here along with their brief description.

i) Identification of the statement/concept: This step is the beginning of thinking skill of IPC. The teacher will give the statement or the topic selected to debate.

ii) Listing the statements showing strengths and opportunities of the concept: In this state the teacher will ask his students to think all the positivity present in the concept. The teacher will allow his students to think good ideas, to list out mentally then they will be allowed to write down in their notebooks without any discussion.

iii) Listing the statements showing weakness and threats of the concept: This step is similar to the above step but here the teacher asks to make a list of weakness present in the concept. Students arrange them in the list in their notebooks.

iv) Selecting the more applicable sentences for the statement/concept: Now students select the more applicable sentences from the list which are having heavy impact or the sentences showing more strength.

v) Selecting the more harmful sentences for the statement/concepts: After the strong positive sentences. Students are asked to select most hazardous sentences from the second list of negative sentences in the same way as previous step.

vi) Finding arguments for the selected sentences in favour of the concept: This step requires more live support from the students.
Teacher is like a passive listener. The teacher gives a list of selected sentences which gives strength to the statements. The students give logical justification to the selected sentences one by one.

vii) **Finding the arguments for the selected sentences against the given concept:** This step is similar to the above step. The teacher will show the second list of harmful sentences and ask the students for their justifications. That justification must be based upon the logical arguments.

viii) **Drawing the boundaries by specifying for the judgment:** This step is essential for making the process of Identifying Pros/Cons complete. Student thinks properly or step by step to get best solution of the situation or a problem. They draw boundaries on the basis of effect of selected sentences on the statement.

By following these steps you can think of pros and cons of any topic and can draw boundaries too to take a decision.

### 1.2.4 Purpose of Identifying Pros/Cons:

- It is a strategy designed to encourage all students to participate actively in class discussion and to think critically.
- It gives students a framework for evaluating both sides of an issue or question. Students are encouraged to process opposing evidence and information before asserting viewpoints, giving them an opportunity to refine their thinking.
- It requires students to work in groups and helps to develop cooperative learning skills.
- It incorporates all four of the language skills (reading, writing, speaking, and listening).
- It functions as a pre reading, post reading, or prewriting strategy.
- Helps students who are active, purposeful, and independent learners.

So now, you have understood about the theme on which this module is made. The second part of module is about the content of your science course textbook but in the way of Identifying Pros/Cons Thinking Skill.
Part [II] Health and Diseases

The present module deals with health and its type, disease and its types along with different examples, pictures, tables etc. To understand the module clearly you have to read the following instructions carefully.

➢ You are free to read it according to your own pace. If needed you can take help of your teacher.

➢ In this module you will have boxes like this in which few questions will be given you to solve.

➢ First of all you have to try to solve the questions, if you won’t be able to solve it; you may get the answer along with the practice questions and exercises.

➢ This rectangular box will contain few important definitions.

➢ In some places box will contain few thought provoking questions, where you have to stop, think and give the answer.

This module is an attempt made to make students well acquainted with teaching methods and techniques. Apart from the content this module has been arranged in such a way that you can read according to your own pace and can interact with each other.

Structure:
1.0.0 Introduction
1.1.0 What is Health?
1.2.0 Environment and Health
1.2.1 Physical Environment
1.2.2 Social Environment
1.2.3 Economic Status and Health
1.2.4 Cleanliness and Health
1.4.0 Disease
1.4.1 Healthy and Disease-Free
1.4.2 Disease and its symptoms
1.4.3 Acute and Chronic Diseases
1.4.4 Infectious and Non-Infectious Diseases
1.5.1 Sum-Up
1.6.1 Interactive Questions and Answers
**Entering behaviour:**
To develop module the researcher has investigated the entering behaviour of students which were showing their present level at that time. On the basis of that, the researcher constructed the module. The entering behaviours are as follows:

- Students are able to use English language for interaction with each other about the module.
- Students are able to tell the meaning of health.
- Students are able to define term the ‘Healthy’.
- Students are able to tell the meaning of disease.
- Students are able to classify the of diseases.

**Terminal Behaviour:**
After reading this module, the changes occurring in students would be their terminal behaviour. It can be predicted under following points.

After reading the given module students will be able to

- Define the term ‘Healthy’ in their own words.
- Describe relationship between physical surrounding and health.
- Establish relationship between economic status and health.
- Point out role of public cleanliness for being healthy.
- Classify health into social and individual health.
- Define disease.
- Differentiate between the terms ‘Healthy’ and ‘Disease-free’.
- Tell symptoms of common diseases.
- Classify diseases into Acute and Chronic.
- Classify diseases into Infectious and Non-infectious.
- Think about the pros of the concept.
- Think about the cons of the concept.
- Draw boundaries about the concept.

**1.0.0 Introduction**
Hello students 😊
You must be thinking that this is one more book for you to read the content.... yes it is, but this small book is a new and interesting way of learning your content. You are going to read about Health and Diseases in some creative form. You will be stopped by some boxes about which you have been informed earlier and it will give you a very good chance to think and understand the content by your own. So let’s start... ⭐⭐
1.1.0 What is Health?

We have heard the word Health used quite frequently all around us. We use it ourselves as well, when we say things like “my grandmother’s health is not good.” Our teachers use it when they scold us saying, ‘this is not a healthy attitude.’

Think: What does this word ‘Health’ means?

If we think about it, we realise that it always implies the idea of ‘being well.’ We can think of this well-being as effective functioning. For our grandmothers, being able to go out to the market or to visit neighbours is ‘being well’, and not be able to do such things is ‘poor health.’ Being interested in following the teaching in the classroom so that we can understand the word called ‘healthy attitude’; while not being interested is called the opposite.

‘Health’ is therefore a state of being well enough to function well Physically, mentally and socially.

We can see healthy kids in the following picture.

Health is directly related with its surroundings.... so now we will read about it...

1.2.1 Health and Surroundings

If health means a state of physical, mental and social well being, it cannot be something that each one of us can achieve entirely on our own. The health of all
organisms will depend on their surrounding or their environment. Broadly this environment is of two types- Physical and Social... we will study about it under following captions.

1.2.1 Physical Environment

Our surroundings include our physical environment. The weather change, our home environment, environment of our society all will come under it. All these affects our health.
Health is at risk in cyclone in many ways. Changing weather affects our health if we do not change ourselves according to the weather. To keep our selves healthy, we need to change our dressing and eating habits according to the environment. The next is our social environment.

1.2.2 Social Environment

To understand this, think about the following question.

Can you imagine your life without your friends, your relatives, your social groups even on virtual world like face book, what's app etc... ???

Of course not...!! Human beings live in societies. Our social environment, therefore, is an important factor in our individual health. We live in villages, towns or cities, in such places even our physical environment is decided by our social environment up to a level.
We need to be happy in order to be truly healthy, and if we mistreat each other and are afraid of each other, we cannot be happy or healthy. Social equality and harmony are therefore necessary for individual health. We can think of many other such examples of connections between community issues and individual health.

1.2.3 Economic status and health

We need to fulfil our daily requirements properly for good health like food etc. And this food will have to be earned by doing work. For this the opportunity to do work has to be available. Generally that opportunity is considered as job. Once economic status is directly related to their earning sources and it affects the health of the members of that family up to a very great level.

Good economic condition and jobs are therefore needed for individual health.

Along with the above issues good health is directly related with cleanliness. Let's throw some light on it....

1.2.4 Cleanliness and Health

Firstly think and give the answer of following questions.

- Consider what would happen if no agency is ensuring that garbage is Collected and disposed?
- What would happen if no one takes responsibility for clearing the drains and ensuring that water does not collect in the street or open spaces?

So, if there is a great deal of garbage thrown on our streets, or if there is open drain-water lying stagnant around where we live, the possibility of poor health increases. To understand it better, compare the two villages given in the following picture.
We can easily say that the health of clean village people will be good.

Only public cleanliness cannot result as good health, we have to maintain proper personal health also. It can be understood by the following chart.

We are also required to keep our home and surrounding clean to maintain good health.
1.4.0 Disease

We have studied about health... if the above is what we meant by health, what do we mean by ‘Disease’? The word is actually self-explanatory – we can think of it as

<table>
<thead>
<tr>
<th>Disease- Disturbed ease.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In other words, literally means being uncomfortable.</td>
</tr>
</tbody>
</table>

However, the word is used in a more limited meaning. We talk of disease when we can find a specific and particular cause for discomfort. This does not mean that we have to know the absolute final cause. For example, we can say that someone is suffering from diarrhoea without knowing exactly what has caused the loose motions.

1.4.1 Healthy and Disease-free

To understand it, firstly we need to think about the following.

Think: Being healthy and being disease free are the same or different?

From the above example, we can now easily see that it is possible to be in poor health without actually suffering from a particular disease. Simply not being diseased is not the same as being healthy.

‘Good Health’ for a dancer may mean being able to stretch his body into difficult but graceful positions. On the other hand good health for a musician may mean having enough breathing capacity in his/her lungs to control the notes from his/her flute. To have the opportunity to realise the unique potential in all of us is also necessary for real health.

So, we can be in poor health without there being a simple cause in the form of an identifiable disease. This is the reason why, when we think about health, we think about societies and communities. On the other hand, when we think about disease, we think about individual suffering.
1.4.2 Disease and its Symptoms

Let us now think a little more about disease.

```
Think: What does Disease look like?
```

Have you ever thought that in the first place, how do we know that there is a disease? In other words, how do we know that there is something wrong with our body? We know that tissues make up psychological system or organ systems that carry out body functions. For example, digestive system has the stomach and intestine, and it helps to digest food taken in from outside the body. The musculoskeletal system, which is made up of bones and muscles, holds the body parts together and helps the body move.

When there is a disease, either the functioning or the appearance of the one or more system of the body will change for the worse. These changes give rise to symptoms and sign of the disease.

```
Symptoms of the disease are the things we feel as being 'wrong'.
Signs of the disease are what physician will look for on the basis of the symptoms.
```

In the symptoms of the disease we have a headache, we have cough, we have loose motions, we have a wound with pus; these are all symptoms. These indicate that there may be a disease, but they don’t indicate that, what the disease is. For example, a headache may mean just examination stress, or, very rarely it may mean meningitis, or any one of a dozen different diseases.

Sign will give a little more definite indication of the presence of a particular disease. Physician will also get laboratory tests done to pinpoint the disease further.
1. State any two conditions essential for good health.
2. State any two conditions essential for being free of disease.
3. Are answers to the above questions necessarily the same or different? Why?

Now let’s talk about the different types of diseases. The diseases will be different depending upon a number of factors. They are as follows.

1.4.3 Acute and Chronic Disease
One of the most obvious factor that determines how we perceive the disease is its duration. Some disease last for only a very short period of time, and these are called acute diseases. For example, we all know from experience that the common cold lasts for only a few days.

While some other diseases can last for a long time, even as much as lifetime, and are called chronic diseases. An example is the infection causing elephantiasis, which is very common in some parts of India.

1.4.4 Infectious and Non-Infectious Diseases

Dear students, we have seen that it is important to keep public health and community health factors in mind when we think about the causes of diseases. In this caption, we are going to divide the diseases on the basis of their causes.

Think
✓ Do all diseases spread to people coming in contact with a sick person?
✓ What are the diseases that are not spreading?
✓ How would a person develop those diseases that don’t spread by contact with a sick person?
It is useful to think of the immediate causes of diseases as belonging to two different types. One group of causes is the infectious agents, mostly microbes or microorganisms. This is because the microbes can spread in the community, and the disease they cause will spread with them. On the other hand, there are also diseases that are not caused by infectious agents. Their causes may vary, but they are not external causes like microbes that can spread in the community. Instead, these are mostly internal, non-infectious causes.

**Diseases where microbes are immediate causes are called Infectious diseases, where as microbes are not immediate Cause are called as non-infectious diseases.**

Very common example of infectious disease is common flu. For non-infectious disease, we can see that some cancers are caused by genetic abnormalities. High blood pressure can be caused by excessive weight and lack of exercise.

You can think of many other diseases where the immediate cause will not be infectious. The way in which diseases spread, and the way in which they can be treated and prevented at the community level would be different for different diseases. This would depend a lot on whether the immediate causes are infectious or non-infectious.

1.5.0 Sum-Up

Congrats students, you have completed this module... and it’s sure that you all have enjoyed it... yes or no??? Let’s take a look on what we have studied. First of all you have got an introduction about this module, that what is it and on which basis, it is made up of. Then you have studied about a new Thinking Skill in brief and that was Thinking Skill of Identifying Pros and Cons. After that you reached on your content and that was ‘Health and Disease’. You have studied Health in terms of its meaning and its relation with its surrounding. You have studied the role of physical and social environment as well as economic status and cleanliness for good health.

After that you enquired about Disease. The difference between Healthy state and Disease free state were also studied by you. Then the classification of diseases as acute and chronic plus infectious and non-infectious was given to you. There were so many nice pictures for easy understanding. Some box with some thought provoking statements were given and some boxes with some question for you to answer were also given. Important things were also given in some different boxes.

Now at the end, you all are going to study some interactive question asked in this module as well as new questions with their answers. One last question is supposed to be answered by yourself. So now, enjoy this last part of this module...© ☺
1.6.0 Interactive questions and answers

Q. 1 What does the word ‘Health’ means?
Ans: Health is a state of physical, mental and social well-being.

Q. 2 State any two conditions essential for good health.
Ans: These are as follows.
   i) Good physical and social surroundings.
   ii) Good economic status.

Q. 3 Which one of the following kids, you feel healthy and why?

Ans: We can identify the healthy person via looking at him for normal good health.
The kid (A) is looking healthy as having no sign of poor health while kid (B) is
having dark circles, looking tired and dull so he is not healthy.

Q. 4 State any two conditions essential for being free of disease.
Ans: These are as follows.
   i) Proper maintenance of personal and public cleanliness.
   ii) Person should remain healthy.
Q.5 Analyse the given pictures and answer that in which condition the person will be able to maintain good health and why?

Ans: The picture (A) is showing maintenance of cleanliness, so in condition (A) the person will remain healthy.
Q.6 The disease where microbes are the immediate causes are called
(a) Acute Disease (b) Infectious Disease
(c) Chronic Disease (d) Non-infectious Disease
Ans: (b) Infectious Disease

Q.7 What is the difference between symptoms and sign of the diseases?
Ans: Symptoms of the disease are the things we feel as being ‘wrong’. While Sign of the disease are what physician will look for on the basis of the symptoms.

Q.8 How can we classify diseases on the basis of their duration?
Ans: we can classify diseases into two parts on the basis of their duration.
   i) Acute Disease - Some disease last for only a very short period of time, and these are called acute diseases.
   ii) Chronic Disease - Some other diseases can last for a long time, even as much as lifetime, and are called chronic diseases.

Q.9 State the following sentences as True/False.
   i) Good economic conditions are needed for good individual health.
   ii) Social environment is not an important factor in our individual health.
   iii) It is possible to be in poor health without suffering from a particular disease.
   iv) High blood pressure is an example of Infectious Disease.
   v) Common flu is an example of Chronic Disease.
Ans: i) True
     ii) False
     iii) True
     iv) False
     v) False

Q.10 How many times did you fall ill in the last one year? What were the illnesses?
   (a) Think of one change you can make in your habits in order to avoid any of/most of the above illness.
   (b) Think of one change you would wish for in your surroundings in order to avoid any of/most of the above illness.
Ans: Dear students, answer this question by yourself. 😊
APPENDIX - VI

COURSE WORK CERTIFICATE
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APPENDIX - VII

NET CERTIFICATE
Electronic Certificate No: 121019965

University Grants Commission
NATIONAL EDUCATIONAL TESTING BUREAU

NATIONAL ELIGIBILITY TEST FOR LECTURESHIP

UGC Ref. No: 19965/(NET-JUNE 2012) Roll No: 18090131
Certified that UPASANA TIWARI

Son/ Daughter of HARISHARAN TIWARI
and MANISHA TIWARI has qualified
the UGC-NET for eligibility for lectureship held on 24-06-2012
in the Subject EDUCATION

The date of qualifying NET is 12th November, 2012, which is also the date of
declaration of the result.

This is an electronic certificate only and its authenticity should be verified from the UGC
by the employer through [www.ugcnetexam.in](http://www.ugcnetexam.in). This electronic certificate can also be
verified by scanning QR Bar Code printed on the electronic certificate.

Validity of the electronic certificate is forever.

Date of Issue: 13-01-2013

Note: As UGC has issued the electronic certificate on the basis of information provided by the candidate in
his/her Application Form, the appointing authority should verify the original records/certificates
of the candidate while considering him/her for appointment, as the Commission is not responsible
for the same. The candidate must fulfill the minimum eligibility conditions for NET within two years
from the date of declaration of UGC-NET result.

(If wherever PWD is shown in the UGC Ref. No., the recruitment body should check the relevant
documents of disabilities.)
APPENDIX - VIII

PUBLISHED PAPER
Effectiveness of Instructional Material in Science based on Thinking Skill of Identifying the Pros/cons in terms of Students' Achievement

Thinking skills are one of the most important, yet inadequately implemented areas of the curriculum. The present study is about the effect of the thinking skill of Identifying the Pros/cons among twenty seven thinking skills.

**Introduction:**

Thinking in cognitive side includes all forms of mental activities sometimes in order to solve problems but sometimes for no apparent purpose at all. Idle day dreaming is one type of thinking at other extreme is the purposeful thinking of students, writers, composers and artist. A thinking process is relatively complex and time consuming cognitive operation such as concept formation, problem solving and composing all of which employ one or more core thinking skills.

**Types of Thinking Skills:**

There are twenty seven types of thinking skills.

1. Comparing
2. Translating
3. Using Analogies
4. Classifying
5. Recognizing
6. Imaging
7. Setting Priorities
8. Estimating
9. Logical Deducing
10. Summarizing
11. Setting Criterion
12. Identifying pros/cons
13. Hypothesizing
14. Goal Setting
15. Identifying Propaganda
16. Synthesizing
17. Problem Solving
18. Identifying Consequences
19. Sequencing
20. Decision Making
21. Justifying
22. Observing
23. Predicting
24. Creating/Designing
25. Evaluating
26. Making assumptions
27. Interpreting

This research work is about one kind of thinking skill namely Identifying Pros/Cons.

**Rationale:**

The rationale has been presented on the basis of review of related literature which is given below.

Test) treatment upon creative thinking & problem solving skill of 9th class students. Singh & Gosain (1993) studied Critical Thinking in relation to intelligence & socio economic status of Uttar Pradesh intermediate girls coming from correspondence course & regular schooling. Michael (1998) prepared and tried out the program for developing creative thinking ability in the students of the age group 10+ to 12+ controlling some psycho-socio factors. Sharma (2001) developed an instructional material for thinking skills of classification at primary level and found it to be effective. Tripathi (2002) observed the effectiveness of instructional material on thinking skill of Creative Problem Solving in terms of achievement and students' reactions at primary level. Asthana (2007) studied Effectiveness of Instructional Material on Thinking Skill of Classification in terms of student's achievement and reaction at middle school level. Dhade (2008) studied the Effectiveness of Instructional Material in science based on thinking skill of Creative Problem Solving in terms of students' achievement and reactions at middle school level.

From the researches in the field of thinking skills it is evident that very little work has been done for the development of thinking skills among students. Maximum work has been done for primary and higher grade students as compared to the secondary level students. So there was a need to develop instructional material on thinking skill, of Identifying Pros/Cons for secondary level students. Children need to develop the skill of IPC as they are supposed to take so many decisions in their life related with their education and vocation. If they know how to look properly on positive as well as negative aspects of each concept then they will be able to take correct decision. If the students learn to deal with the problems in this way, they can successfully transfer this skill to any area of thinking including other subjects and real life situations.

Every concept or phenomenon has two aspects, one is positive and other is negative. The Thinking skill of Identifying Pros/Cons helps the students to think about both the aspects of a concept or phenomenon. It develops the positive and negative thinking approaches simultaneously which help the students to evaluate the concept/phenomenon properly. That's why researcher decided to work on the Thinking skill of Identifying Pros/Cons.

**Objective of The Study:**
To compare the mean achievement scores of students taught through Instructional material based on the Thinking skill of Identifying Pros/Cons at the pre and post test stages.

**Hypothesis:**
There is no significant difference between the mean achievement scores of students taught through instructional material based on the Thinking skill of Identifying Pros/Cons at the pre test and post test stages.

**Sample:**
For the present study the sample consisted of 9th grade school students of 'Brilliant Higher Secondary School, Indore'. The age group of the sample was 14-15 years, and it included boys and girls both. The students belonged to average socio economic status, urban residential background and their medium was English.

**Tools:**
Self developed achievement test was used.

**Achievement Test:**
The achievement of the students was assessed with the help of achievement test developed by the researcher. Instructions were given in the test. The test comprised of 30 questions including multiple choices, fill in the blanks, match the column, one word and short answer type of questions. The time limit for answering the question was 40 minutes and the total marks for the test were 30.

**Design of the Study:**
The present study was experimental in nature. The pretest-posttest single group design was employed for this study. First pre test of achievement was administered. Then treatment was given for 22 days. After this the post test was administered by the researcher. The pretest-posttest single group design is represented as follows.

\[
\begin{align*}
X & = \text{treatment} \\
O & = \text{pretest} \\
O & = \text{posttest}
\end{align*}
\]

Where, \(O\) = pretest

\(X\) = treatment

\(O\) = posttest

**Data collection:**
Researcher visited many CBSE and State board schools for the purpose of data collection. Permission from the different schools was taken. Five schools granted permission for data collection. From these five schools one school was selected randomly by lottery method. The school was Brilliant Higher Secondary School, 578-Khatiwala tank, Indore. The researcher administered a pre test (achievement test) and gave the students treatment of 22 days through instructional material, after that the post test was administered by the researcher consisting of achievement test. After collecting the answer sheets the scoring was done as per set criteria by the researcher for further statistical analysis.

**Statistical Analysis:**
Correlated "t" test was employed for analyzing the data.

**Effectiveness of Instructional Material in Terms of Achievement**
The pre and post-test marks obtained in the criterion test were analyzed by employing the correlated t-test; the results are summarized in table 1.

| Table 1: Test wise Mean Achievement Score, SD and Correlated t-value |
|------------------|------------------|------------------|------------------|------------------|------------------|
| Test              | Mean             | N                | SD               | R                | t-value          |
| Pre achievement   | 4.05             | 34               | 2.62             | 8.37             | 18.24**         |
| Post achievement  | 14.23            | 34               | 5.11             |                  |                  |

**significant at 0.01 level**
It is clear from the Table 1 that the correlated t-value is 18.24, which is significant at 0.01 level with df = 33. It indicates that the mean scores of achievement before and after the treatment through instructional material in science based on thinking skill of identifying pros/cons differ significantly. In this situation, the null hypothesis that “There is no significant difference between the mean achievement scores of students' at the pretest and posttest stages.” is rejected.

Further from Table 1 it is evident that the mean scores of achievement after the treatment through Instructional Material in Science based on Thinking Skill of Identifying Pros/Cons is 14.23, which is significantly higher than that before the treatment which is 4.05. It may therefore, be concluded that instructional material in science based on thinking skill of identifying pros/cons has the potential to increase the achievement of students significantly.

Findings of The Study:

The instructional material in science based on Identifying Pros/Cons Thinking Skill was found to be significantly effective in terms of achievement of students.

References:

(10) www.coallessions.wikyspaces.com
(11) www.questia.com
(12) www.wikipedia.com
(13) www.google.com
APPENDIX - IX

PRE PH.D. PRESENTATION
CERTIFICATE

This is to certify that Mrs. Upasana Sharma has given Pre Ph.D. Presentation on the title "Effectiveness of Instructional Material based on Thinking Skill of Identifying Pros/Cons in terms of Students’ Cognitive and Affective domain related variables at Secondary School Level" on 09.03.2015 at School of Education, DAVV, Indore, in the presence of faculty members and research scholars, as per the requirement of U. G. C. REGULATION 2009.

Her work was found satisfactory for the submission.

Dr. (Mrs.) Anju Malhotra
SUPERVISOR
Professor and Dean
School of Education
D.A.V.V. Indore.
APPENDIX - X

PAPER PRESENTED

CERTIFICATE
CERTIFICATE

Certify that Dr./Mr./Ms. Upasana Tiwari of Vidyasagar College, Indore, Institute/College/University participate in the National Conference. He/She Presented the Paper entitled "Teacher Education Challenges in Global Perspective."

Dr. N.C. Varshney (Director)  Mr. Anand Singh (Secretary)  Dr. Fakhruddin Ali Ahmad (Organizing Secretary)
APPENDIX - XI

SELF CONFIDENCE INVENTORY
कभी होना ऐसा होता है कि आप जो पाना चाहते हैं, वह पता लगता है।

अपने निर्णयों पर पहुंचने में आपको कठिनाई होती है।

किसी बच्चे या प्रियजनों में एक ऐसे विरोधी के सम्मुख जो आप से बहुत जोड़कर बचत है आप ठोस प्रकार से धीमे रहते हैं।

वे निष्ठुर देखते हैं। तो कि नजर जोड़ने होता है।

आप अपने आत्मानी को धीरे-धीरे पर स्थायी होते हैं।

अपने कार्यों को धीरे-धीरे (diligent) विश्वास व्यक्त करने के अनुभव की नीति (relaxed) करते हैं।

नीचे दिखाये गए (uplifting) विश्वास व्यक्तियों के अपने व्यक्तित्वों की नीतियों की अनुभव की नीति (relaxed) करते हैं।

आप व्याख्यात स्वर्ण को अनोखा (unworthy) अनुभव करते हैं।

आप निरधार (confused) अनुभव करते हैं। व्यक्ति जो बचत करते हैं।

आपको अनुसरण (frustrated) अनुभव करते हैं। व्यक्ति जो बचत करते हैं।

आपको संचार (frustrated) अनुभव करते हैं। व्यक्ति जो बचत करते हैं।

अपने कापड़ों जो अपने बचत करते हैं।

आपकी लाभ व्यक्तियों के अपने बचत करते हैं।

आप अपने समाज (unworthy) से रहते हैं।

यदि आपको अनुभव (confused) से रहते हैं।

अपने बचत करते हैं। व्यक्ति जो बचत करते हैं।

किसी शाक्ति में अपने स्वभार (natural) अनुभव करते हैं।

आप जब कोई निर्मल परिवार सुरक्षा बचत है तब वे बोलते हैं कि आपको ये करने चाहिए या नहीं कर पाए।

नीबूरा

यह कोई परिस्थिति नहीं है। आपने के पृथ्वी जो कुछ करना चाहिए वहीं जो आपके अनुभव में सही व्यापा गति ही रहने है। आप वर्तमान कार्य को पढ़े, यदि कार्य आपके सम्बन्ध में सही आपना व्यक्ति व्यक्ति हो तो उन्हीं के नीचे व्यक्ति में सीता (X) का निश्चित अंशित कर दें। इसपर व्यक्ति रह जो आपको अपने व्यक्ति में हो राह देती है। कोई भी उसके या लगता नहीं है, जो उसका व्यक्ति नहीं होता। यदि तुम्हारा अनुभव हो, तो राह में जाए।
केज्ब नाम प्रयोज्य: ऐसा होता है कि काम करने का समय आगे तक आप अपना
काम ही से पते हैं।
16. कोई बात कहने तो यह आपसे आपसका जवाब देने में नहीं चुकते।
17. कालों करने में आपका कल्याण क्रियात्मक अधिक सार है।
18. काम करने के लिए आपको बूढ़े होने वाले हैं।
19. कभी-कभी आपने कहा-कहा अद्वैत है।
20. यह किसी को बताते हैं कि आप अपना काम ही से बना रहे हैं।
21. यह काम के करने के लिए आपकी आपकी काम की आवश्यकता है।
22. यह काम के लिए आपके आपके पक्षी वाले हैं।
23. यह काम के करने के लिए आपकी आपकी पक्षी वाले हैं।
24. यह काम के करने के लिए आपकी आपकी पक्षी वाले हैं।
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47. यह काम के करने के लिए आपकी आपकी पक्षी वाले हैं।
48. यह काम के करने के लिए आपकी आपकी पक्षी वाले हैं।
49. यह काम के करने के लिए आपकी आपकी पक्षी वाले हैं।
50. यह काम के करने के लिए आपकी आपकी पक्षी वाले हैं।
APPENDIX - XII

TOLERANCE OF AMBIGUITY TEST
अस्पष्टता के प्रति सहनशीलता
(शाब्दिक मापनी)

Dr. Smita Bhawalkar
Principal
Saraswatee Shiksha Mahavidyalay,
Ujjain

निदेशः

कभी-कभी जीवन में ऐसी स्थितियों आती हैं कि हम उस स्थिति को स्पष्ट रूप से समझ नहीं पाते या अर्थ प्रदान नहीं कर पाते क्योंकि उसमें कुछ अनिर्दिष्टता होती है या तालगूत का अभाव होता है। ऐसी ही कुछ स्थितियाँ आगे दी गयी हैं। इस परीक्षण में आपको बताना है कि आप ऐसी स्थिति में क्या करेंगे अर्थात भिन्नता के आगे दिये विकल्पों में से किसे चुनेंगे यह आपको दर्शाना है।

आपको उत्तर पत्र भी दिया है अतः आप कृपया परीक्षण पुर्तिका पर कुछ न लिखें। आप जिस विकल्प को चुनते हैं उत्तर पत्र पर उसके क्रमांक के आगे के खाने में (१) चिन्ह द्वारा दर्शाना दें। इस परीक्षण में कोई उत्तर सही या गलत नहीं है तथा ही यह आवश्यक नहीं कि आपका उत्तर आपके सहयोगी से मिले। आपको तो पूर्व रूप से अपने विचार के अनुसार उत्तर देना है। आपकी उत्तर पूरी तरह गोपनीय रखे जाएंगे। अतः आप सिवा किसी हिस्टोरियांट के उत्तर दें। आशा है आप पूर्व रूचि से यह कार्य करेंगे। आपको दिये गए उत्तर पत्र पर अपना नाम एवं अन्य पूर्तियाँ अवश्य करें।

अब आप अपना कार्य आरंभ करें।

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Agra Psychology Research Cell
Tiwari Kothi, Belanganj, Agra-282004
Email: vivekaprc@rediffmail.com
रिचितियाँ

निर्देश — निम्नलिखित कथनों में दी हुई स्थितियों में आप जिस विकल्प से सहमत हों उस विकल्प के क्रमांक के आगे उतरार पत्र पर (V) का चिन्ह लगाए।

01. यदि आपको एक साथ कई काम सौंप दिए जाएं, जिनमें आपस में तालमेल व समझौता नहीं है जैसे सज्जी खरीदना, दबाई खरीदना, कपड़ा खरीदना किसी को संदेश देना आदि तो —
   (अ) आप उन्हें करना अस्वीकार कर देंगे।
   (ब) आप धैर्यपूर्वक उन्हें प्राधिकता के आधार पर क्रम देकर पूर्ण करने की याजना बनाएंगे।
   (स) आप हड़पड़ाहट में काम लूह करके कुछ ही देर बाद परेशान होकर काम छोड़ देंगे।

02. यदि आपके किसी निर्देश के बोलने में वापसी दोष (जैसे हकलाहट) हो; उसकी बात स्पष्ट समझ में न आती हो तो —
   (अ) आप तुरंत वहाँ से किसी झाले ने से हट जाएंगे।
   (ब) आप धैर्यपूर्वक उसकी पूरी बात सुनेंगे।
   (स) आप गोड़े समय के लिए ही धैर्यपूर्वक सुन सकते हैं, फिर उल्लंघन होकर वहाँ से हट जाएंगे।

03. आप बहुत से कामों को सावधानी से बिना परेशान हुए कर सकेंगे तब ही आपके आसमान का वातावरण अवनिव्वाद व बिखरा हुआ हो —
   (अ) हीं, पूरी तरह।
   (ब) कुछ हद तक।
   (स) बिल्कुल नहीं।

04. आप किसी नए खेल को सीखना चाहते हैं और किसी से सीखना प्रारंभ करते हैं, परंतु यदि वह खेल खिलाने वाला ध्याति ठीक डंग से आपको समझा न पाए तो —
   (अ) आप तुरंत उकता कर सीखना छोड़ देंगे।
   (ब) आप ठगे समय बाद परेशान होकर खेल सीखना छोड़ देंगे।
   (स) आप धैर्यपूर्वक खेल सीखने में लगे रहें।

05. जब आध्यात्म कक्ष में कोई विषय दस्तू पढ़ रहे होते हैं और आपकी समझ में नहीं आता तब आप—
   (अ) कुछ देर उसे समझने का प्रयास करेंगे पर न समझ पाए पर हताश होकर समझने का प्रयास छोड़ देंगे।
   (ब) आप तुरंत अदालत हो जाएंगे और कक्ष से आपका मन उच्च जाएगा।
   (स) आप अधिक एकाग्रता से समझने का प्रयास करेंगे जब तक कि आपकी समझ में नहीं आ जाता।
(Tolerance of Ambiguity)

(After reading the situations, mark (‡) in the appropriate column to select suitable option for the situations given in the test.)

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(b) आप थोड़ी देर कर रुककर उनकी बात को समझने का प्रयास करेंगे। पर समझ में न आने पर कुछ देर बाद उठ जाएँगे।

(5) आप पूर्ण समय तक बैठकर श्रीमती वक्तव्य सुनने व उसमें से उपयोगी विनू छोटे लेंगे।

12. आपके घर पर किसी दिन संयोग से आपकी कुछ मिट्रा एकत्रित हो जाएँ जिनमें से सभी अलग-अलग तरह से आपको परिचित है अर्थात् कई पड़ोसी हैं, कई कक्षा का सहयोगी हैं, कई खेलों के मेडल का भीतर है आदि। ये आपस में परिचित भी नहीं हैं। आप नहीं जानते हैं कि किस काम से आया है। आपको सभी का एक साथ स्वागत भी करना है व सभी से बातचीत भी करने है ताकि किसी को यह न लगे कि उसकी उपेक्षा की जा रही है।

(a) कुछ देर के लिए परेशान होकर प्रभित हो जाएँगे पर कुछ देर बाद संयोग होकर विचारपूर्वक सभी से दीक दंग से बातचीत करते हुए सभी को संतुष्ट कर देंगे।

(b) आप एकदम प्रभित हो जाएँगे कि किससे क्या बात करूँ व इसी कारण आपका व्यवहार असंतुष्ट हो जाएगा व आपके साथी असंतुष्ट होकर जाने लगेंगे।

(5) आप बिना परेशान हुए सभी से सहजता से बातचीत करेंगे। सभी को आपस में परिचित करके, उनका स्वागत उपित रूप से करेंगे।

13. आप कौई पत्रिका पढ़ रहे हैं उसमें जो लेख आप पढ़ना चुका करते हैं उसमें पढ़ते-पढ़ते आपको अनुभव होता है कि जो सामग्री दी गई है वह शीर्षक के अनुसूचि नहीं है व लेखक कहा कहना चाहता है यह उस सामग्री को पढ़ने से सप्तद नहीं हो रहा है ऐसे लेख को—

(a) आप तुरंत पढ़ना छोड़ देंगे।

(b) कुछ देर और पढ़कर समझने का प्रयास करेंगे पर आप समझ में न आने पर पूरी तरह नहीं पढ़ेंगे।

(5) आप अंत में तक पढ़ते रहेंगे इस शैर्ष वसे कि हो सकता है कि शायद पूर्ण पढ़ने पर बात समझ में आ जाएँगी।

14. आप एक प्रसिद्ध विचारक की प्रदर्शनी देखने जाते हैं। वहाँ लोग अभकाश विचर ऐसे हैं, जिनसे विचारक का यथायोग्यता लोक में चाहता है यह सप्तद नहीं विचरता ऐसी स्थिति में आप—

(a) प्रदर्शनी की थोड़ी देर तक देखते रहकर समझने का प्रयास करेंगे फिर लौट जाएँगे।

(b) तुरंत प्रदर्शनी देखना छोड़ देंगे।

(5) आप पूर्ण प्रदर्शनी शहत से देखकर समझना चाहेंगे।

15. आपके किसी विषय की परिशिष्ट में जो प्रश्न पत्र मिलता है उससे पढ़कर आप अनुभव करते हैं कि इसमें निर्देशों के अनुसार यह सप्तद नहीं है कि आपको क्या करना है साथ ही प्रश्नों की सवाल भी ऐसी है कि इस प्रश्न के दो अर्थ निकलते हैं त यह सप्तद नहीं है कि आपसे यहीं क्या चाहा गया है ऐसी स्थिति में आप—

(a) प्रश्न-पत्र को हल करना तुरंत छोड़ देंगे और हताश होकर उठ जाएँगे।

(b) प्रश्न-पत्र को दो-तीन बार पढ़कर न समझ में आने पर थोड़ी देर बाद छोड़ देंगे।

(5) पुनः पुनः प्रश्न-पत्र को ध्यान से पढ़कर कुछ निष्कर्ष निकाल कर पूर्ण हल करेंगे।
APPENDIX – XIII

PERSONALITY INVENTORY

(MPI)
Are you happiest when you get involved in some project that calls for rapid action? Yes  □  ? □  No □

Do you sometimes feel happy, sometimes depressed without any apparent reason? Yes □  ? □  No □

Does your mind often wander while you are trying to concentrate on some topic? Yes □  ? □  No □

Do you usually take the initiative in making new friends? Yes □  ? □  No □

Are you quick and sure in your actions? Yes □  ? □  No □

Are you frequently lost in thoughts even when you are conversing? Yes □  ? □  No □

Are you sometimes bubbling over with energy and sometimes very sluggish? Yes □  ? □  No □

Would you rate yourself as a lively individual? Yes □  ? □  No □

Would you be unhappy if you were prevented from making social contacts? Yes □  ? □  No □

Do you have frequent ups and downs in your mood? Yes □  ? □  No □

Does your behaviour keeps changing without any apparent cause? Yes □  ? □  No □

Do you prefer action to planning for action? Yes □  ? □  No □

Total of Short Scale: N  E
13. Are your day dreams frequently about things that can never come true? ......................... Yes □ No ☐
14. Are you inclined to keep in the background on social occasions? ................................. Yes □ No ☐
15. Are you inclined to ponder over your past? ................................................................. Yes □ No ☐
16. Do you find it difficult to mix with people even at a lively party? .............................. Yes □ No ☐
17. Do you ever feel "just miserable" for no any good reason at all? ................................. Yes □ No ☐
18. Are you inclined to be overconscient? .......................................................................... Yes □ No ☐
19. Do you often feel that you have made up your mind too late to do something? ........... Yes □ No ☐
20. Do you like to mix socially with people? ...................................................................... Yes □ No ☐
21. Have you often lost sleep over your worries? ............................................................ Yes □ No ☐
22. Are you inclined to limit your acquaintance to a selected few? ................................. Yes □ No ☐
23. Are you often troubled by feeling of sin or guilt? ....................................................... Yes □ No ☐
24. Do you often do your work whole-heartedy (sincerely)? .............................................. Yes □ No ☐
25. Do you feel rather hurt very easily? ............................................................................. Yes □ No ☐
26. Do you like to have many social engagements? .......................................................... Yes □ No ☐
27. Would you rate yourself as a tense or highly strung individual? ................................. Yes □ No ☐
28. Do you generally prefer to take the leadership in a group? ........................................... Yes □ No ☐
29. Do you often experience periods of loneliness? .......................................................... Yes □ No ☐
30. Are you inclined to be shy in the presence of the opposite sex? ................................. Yes □ No ☐
31. Do you like to indulge in a reverie (day-dreaming)? .................................................. Yes □ No ☐
32. Do you always have a "ready answer" for remarks directed to you? ............................. Yes □ No ☐
33. Do you spend much time in thinking over good times you had in the past? .............. Yes □ No ☐
34. Would you rate yourself as a happy-go-lucky individual? .......................................... Yes □ No ☐
35. Have you often felt listless and tired for no good reason? ............................................ Yes □ No ☐
36. Are you inclined to keep quiet when out in a social group? ......................................... Yes □ No ☐
37. After critical moment is over, do you usually think of something you should have done but failed to do? .......................................................... Yes □ No ☐
38. Can you usually let yourself go and have a hilariously good time at a picnic? .......... Yes □ No ☐
39. Do ideas run in your mind that you cannot sleep? ...................................................... Yes □ No ☐
40. Do you like work that requires considerable attention? ............................................. Yes □ No ☐
41. Have you ever been bothered by useless thought repeatedly? .................................... Yes □ No ☐
42. Do you often take your work casually? ....................................................................... Yes □ No ☐
43. Are you touchy on various subjects? .......................................................................... Yes □ No ☐
44. Do other people regard you as a lively person? .......................................................... Yes □ No ☐
45. Are you often disappointed and sad? ......................................................................... Yes □ No ☐
46. Would you rate yourself as a talkative individual? ...................................................... Yes □ No ☐
47. Do you ever feel restlessness that you can not sit on a chair for a long time? ............ Yes □ No ☐
48. Do you like to play pranks on others? ......................................................................... Yes □ No ☐

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APPENDIX - XIV

STUDY HABIT INVENTORY
अध्ययन सम्बन्धी आदतों की सूची (S.H.I.)

एम. मुखर्जीधावाय (नई देहली)
डी. एल. सतसागराल (हरिद्वार)

कृपया निम्न का पढ़िए:–

क्या शरीर के?

अध्ययन के लिए पानी पीने के?


नाम:

संख्या:

प्रश्न तथा उत्तर

• क्या तुमने कभी सोशा है कि अध्ययन से सम्बन्धित कुछ आदतें तुम्हारे अन्यदेश बिखरते हैं?
• क्या तुम जानते हो कि अध्ययन की आदतों में तुम्हारे मिश्र तुम्हारे मिश्र है?
• क्या तुम यह जानता हो कि तुम्हारी अध्ययन सम्बन्धी आदतें बया है?

इस सूची में अध्ययन सम्बन्धी आदतों के विभिन्न पहलुओं से सम्बन्धित कुछ कहने के लिए किए है। प्रत्येक कह से एक या अध्ययन प्रकार की आदत को फ्यूज करता है। आपने इन आदतों की किसी निर्धारित मात्रा तक बिखरता किया है बता आप इन सम्बन्ध में जिसे महत्व करते हैं उसी के अनुसार कहने के समय बोलने पांच खाना, जो वह कहा: सदा (always), बहुत (frequently), कभी (sometimes), कभी-कभी (rarely) तथा कभी नहीं (never) वाले प्रश्नों को इंगित करते हैं, में से किसी एक खाने में कोई (x) का निर्देश लगा है। इसी प्रकार, समस्त कथनों का उपर के एवं कभी भी कहना नहीं है इसलिए निर्देशें अपनी राय ध्यान करें।

आपके उत्तर गति रखे जायें।

Estd. : 1971

Phone : 65780

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<p>| क्रम/पद | सदैव (always) | वैस्तविक (frequently) | कमी-कमी (some-| कमी-कमी नहीं (rarely) | (rarely) | (never) |
|-------|----------------|-------------------|----------------|----------------|--------|
| 1. सबसे ज्यादा में लिखने की तालीम को समाप्त करने के लिए उन्हें कड़ी बार पढ़ता हूँ। | ☑ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. हरी पाठ को विस्तार से पढ़ने के पूर्व, मैं हर जगह का प्रयास करता हूँ कि यह बाएं फिसलके समाधान है। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. मैं विस्तार में मुझसे कोई सहायता लेने के विरुद्ध का प्रयास करता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. पुस्तक पढ़ने के बाद मैं फिसलके अंशों को रेखांकित कर लेता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. जब भी प्रयास के समय अव्यवस्थित मद्दत करता हूँ मैं विस्तारकी तालीम का सामना करता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. मैं एक बिचार में सीधी गाई सामग्री को हार्दिक विचार में चीखी गई सामग्री से जोड़ने का प्रयास करता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. मैं धीरे-धीरे पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. तंयों को समाधान के लिए मैं यह सहकर पढ़ने की कोशिश करता हूँ कि वो क्या पढ़। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. अध्ययन के हनन तथा पाठ-पुस्तकों में दो जाने बाली समयों द्वारा मैं अपने पढ़ने का प्रयास करता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. मैं उन पाठों (passages) को रद्द कर देता का प्रयास करता हूँ जो मैं नमस्त्रह नहीं पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. मैं भोर-भोर ने पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. अध्ययन करते समय की आवश्यकता में समय लेता हूँ, उस्त्रे रात लो कोशिश करता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. अध्ययन के समय मैं कुछ त्यों को पूर्ण ध्यान अंतिमत संभालने के सामान का प्रयास करता हूँ जब तक इसके विचार अंतिमत सामान की आवश्यकता के लिए तालीम दिलित करना। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. मैं पूर्ण तालीम के साथ पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. बच्चों के बारे में गाने एवं संगीत बनते है ना तब पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. पढ़ने के समय मैं विश्वास (day dreaming) देखना प्रयास कर देता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. मैं अवस्था पढ़ता हूँ अर्थात् मैं यह पढ़ने के बाद में होता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. विचार (concentration) वाले के लिए मैं कुछ समय समझा है। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. पढ़ने के बाद मैं सो जाता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. अध्ययन वे भोर-भोर पर मैं आसानी से विचार कुकुकुक्क होता जाता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 21. अपने अभ्यास के समय मैं विचारित रहता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 22. मैं निस्तब्ध विचारित कार्य (fixed routine) के अनुसार रोज विचारित विचार को पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 23. मैं रात का खतरा सो जाता हूँ, तथा अब्दकर करने के लिए सुबह जलती उठता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 24. मैं एक विचार विचारित कई पढ़ाता तक पढ़ा रहता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 25. मैं विचार के समय पढ़ने की अवश्यता रात्रि में पढ़ने को प्राथमिकता (preference) देना है। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 26. विचारों के रात्रि पढ़ाने सुकी लाभार्थियों से समझा है। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 27. इसी समय, मोझों विचार्य कार्य समाप्त करने के लिए मैं अपने आय पर जोर (enforce) देता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 28. मैं अपने अभ्यास के लिए सुबह दिन के अभ्यास (term work) को समाप्त करने में अभ्यास करता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 29. मैं एक बार एक नाना बाली पाठों को पढ़ने से हो गया पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 30. अभ्यास के दौरान पढ़ने वाले पाठों का मूल विचार अवधि हो सकता है उनमें बाली पढ़ता हूँ। | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |</p>
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This inventory is translated from English to Hindi by Mrs. Rajani Bhargava (Agra)

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<td>Scores</td>
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<td>LANGUAGE (भाषा)</td>
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</table>

+++ shows the positive and negative nature of the item. Positive 4, 3, 2, 1, 0 Negative 0, 1, 2, 3, 4
This is to certify that Mr./Ms. Upasna Sharma, has participated in the workshop on “Quality Issues in Academics, Paper Setting & Valuation” organized by School of Computer Science & IT, Devi Ahilya Vishwavidyalaya, Indore on September, 26th 2012.

We wish him/her all the best in future endeavors.

Dr. Priyesh Kanungo  
Convener

Dr. Sanjay Tanwani  
Head, SCSIT