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Web sites:


Lateral Thinking Test

Following is a very interesting test. In this test you are required to think differently only. There is no right or wrong answer. You can choose your answer from the given answers. But it is highly recommended that you give your own answers just putting your logics aside.

(Part 1)

Here some Geometrical figures are given. You have to carefully examine the figures. To express immediate thought you got from the figure, you can either choose from the given answer or give your own idea.

Q1. It looks like a

![Image of a figure]

i. Inverted tree with two bases
ii. A skater rolling on the head
iii. A cloud with two antennas
iv. __________________________

Q2. It looks like a

![Image of a figure]

i. Small A
ii. Six, inverted 9
iii. Inverted e
iv. __________________________
(Part 2)

Following part has some situational questions. Give your preferred answer. You can pick from the answers given or write your own answer.

Q3. A man is eating something in a café. One of the waiter pulls out the gun and shoots at him. Reason is

i. Man must have some enmity to the waiter
ii. The waiter is psychic man
iii. Waiter is an undercover cop or a criminal
iv. ____________________________

Q4. A woman has given a proof that her sister killed her husband. Yet the judge declares that he cannot punish the sister.

i. Judge may have some relation with the sister
ii. The sister is already dead
iii. The judge has been bribed
iv. ____________________________

Q5. A couple had a big fight in the day. The husband dies after eating the dinner.

i. Woman must have poisoned the food
ii. Man had a heart attack
iii. Man himself consumed some poison
iv. ____________________________
Q6. A woman had two sons born on the same hour of the same day of the same year. But she claims they are not twins

i. She must be lying
ii. At least one of them is adopted
iii. They are step brothers
iv. ________________________________

Q7. A man rode into the town on Friday. He claims that he stayed there for three nights and left on Friday.

i. it is a lie
ii. he traveled some different time zone
iii. he was drugged so he slept for so long that he forgot the counts of the day
iv. ________________________________

(Part 3)

Q8. Complete the sentence using the given phrase

“It would be nice if”

Phrase “Car”

i. Cars were inexpensive
ii. Cars could fly
iii. Cars could be reshaped whenever wished
iv. ________________________________

Q9. The steering of the bus gets broken. Now

i. It will lose control and collide with something
ii. The driver may use breaks
iii. Some other control device may be used
iv. ________________________________

Q10. A friend presents you a clock with no hands you will
i. Throw it
ii. Mend it.
iii. Keep it as a funny gift from your friend
iv. ________________________________

Part 4

Q11. Complete the sentence

To solve the problem of discipline teacher should use __________ in the class
i. Cane
ii. Reward
iii. Love & affection
iv. ________________________________

Q12. A woman profusely sweating picks up a knife and hits
i. A man chasing her
ii. A burglar
iii. herself
iv. ________________________________

Q13. A child gets under a truck
i. He gets killed
ii. Is seriously injured
iii. Miraculously escaped
iv. ________________________________

Give your view on the statements with reason
Q14. Stupid people should pay less tax

i. Disagree as ______________________________
ii. Agree as ______________________________

Q15. Irrespective of work everyone should be paid equally.

i. Disagree as ______________________________
ii. Agree as ______________________________

Q16. A tomato can be an apple

i. Disagree as ______________________________
ii. Agree as ______________________________

Q17. All food should be free for fatty people

This is an absurd looking statement. With what you will like to change ‘all food’ to make it meaningful

i. No food
ii. Healthy food
iii. slimming tablets
iv. ______________________________

Q18. Professor X has been nicknamed watermelon by his students because

i. He is fatty
ii. They love watermelon as well as him.
iii. He loves watermelon
iv. ______________________________
Q19. Somebody is lying dead on bed, but nobody bothered

i. They have not seen him
ii. They know and have called police
iii. They are heartless people
iv. ________________

Q20. Mrs. Sharma reformed her naughty students with a safety pin

i. By piercing students with needle when they made mischief
ii. By frightening with needle prick
iii. By tucking something embarrassing on their dress with the pin, when they make mischief
iv. ________________

Q21. A traffic police officer saw a truck driver clearly going on the wrong side of a one-way road. But he did not try to stop him as

i. The officer is not on duty
ii. He is not dutiful
iii. He is afraid of the driver or is a relative of him
iv. ________________

Q22. A man lives on the 21st floor of the building. He leaves to the work using a lift. But when he returns, he goes only up to 10th floor by lift then he uses stairs to go to his floor.

i. Man is health conscious.
ii. He is mentally challenged
iii. He meets someone on 10th floor
iv. ________________
iv. Lift has some problem going up 10th floor
v. ________________________________

Q23. How many birthdays an average Indian man celebrate

i. 50
ii. 75
iii. 100
iv. ________________________________

Q24. Why a man living in Haridwar cannot be buried in Pakistan

i. Rules don’t allow
ii. Man may be Hindu so will not be buried but burnt.
iii. Haridwar itself is a place where such rituals are held
iv. ________________________________

Scoring Sheet for Lateral Thinking Test

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Score-1 Thinking</th>
<th>Score-2 Escape</th>
<th>Score-3 Novelty</th>
<th>Score-4 Provocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
<td>Any outrageous answer</td>
</tr>
<tr>
<td>2.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
<td>Any outrageous answer</td>
</tr>
<tr>
<td>3.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
<td>Outrageous answer like the man was having hiccups and the waiter was helping him out by frightening him, as hiccups tend to stop by fear.</td>
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<tr>
<td>4.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer</td>
<td>Answer given by less</td>
<td>Outrageous answer like the women are seismic twins so can’t be punished. Or are</td>
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<td>5.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td></td>
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<td></td>
<td>Outrageous answer like the man was seriously ill and doctors had advised him not to eat food as it will be lethal. The woman was fighting just to convince him not to eat yet the man ate.</td>
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<td>6.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like they are triplets.</td>
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<td>7.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like Friday is the name of the horse.</td>
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<td>8.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer that is not based on a feature of a car like the car should be good in taste.</td>
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<td>9.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like that bus is standing so nothing to worry about.</td>
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<td>10.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like digital clock or a clock announcing the time.</td>
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<td>11.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like indiscipline.</td>
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<td>12.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like fruit or veggie or cake.</td>
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<td>13.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like the truck is standing.</td>
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<td>14.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1,2,3</td>
<td>Answer given by less than 5% population</td>
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<td>Outrageous answer like it will encourage more people to pay more tax so that they are not labeled as stupid.</td>
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<td>15.</td>
<td>Disagree</td>
<td>Agree without citing any proper reason</td>
<td>Agree with reason given by less than 5% population</td>
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<td>Outrageous answer that provides a new idea like we can see the statement in reverse. Equal salary equal work so more load shedding be encouraged</td>
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<td>16.</td>
<td>Disagree</td>
<td>Agree without</td>
<td>Agree with reason given</td>
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<td>Outrageous answer that provides a new idea like tomatoes and apples are concept</td>
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<td>17.</td>
<td>Disagree</td>
<td>Agree without citing any proper reason</td>
<td>Agree with reason given by less than 5% population</td>
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<td>18.</td>
<td>Disagree</td>
<td>Agree without citing any proper reason</td>
<td>Agree with reason given by less than 5% population</td>
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<td>Answer 1, 2 or 3</td>
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<td>21.</td>
<td>Answer 1, 2 or 3</td>
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<td>22.</td>
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<td>23.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1, 2, 3</td>
<td>Answer given by less than 5% population</td>
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<td>24.</td>
<td>Answer 1, 2 or 3</td>
<td>Any other answer than 1, 2, 3</td>
<td>Answer given by less than 5% population</td>
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</table>
## TASK ANALYSIS

<table>
<thead>
<tr>
<th>TERMINAL BEHAVIOUR</th>
<th>TASK DESCRIPTION</th>
<th>ENTRY LEVEL BEHAVIOUR</th>
<th>TASK</th>
<th>TYPES OF LEARNING</th>
<th>METHODOLOGY</th>
<th>APPARATUS USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will be able to: - 1) differentiate between thinking and intelligence</td>
<td>Students will be able to: - 1) explain thinking and its importance 2) explain lateral thinking</td>
<td>Students are familiar with terms like thinking, achievement. They must have an understanding of the educational systems</td>
<td>Activity-1</td>
<td>Signal learning</td>
<td>Lecture method in the Self learning module (SLM)</td>
<td>SLM</td>
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<td></td>
<td>2) recall lateral thinking</td>
<td></td>
<td></td>
<td>Concept learning</td>
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<td></td>
<td>3) recall terms like, vertical, linear critical and creative thinking.</td>
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<td>Principle learning</td>
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<tr>
<td>1) explain PO method and its significance. 2) name different techniques of PO</td>
<td>1) recognize significance of lateral thinking in present day situation 2) appreciate PO method and its tools.</td>
<td>Students have a brief knowledge of importance of thinking in our life. They must be able to understand the difference between thinking and intelligence.</td>
<td>Activity-2</td>
<td>Signal learning</td>
<td>Lecture method in the Self learning module (SLM)</td>
<td>---do---</td>
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<td>2) appreciate PO method and its tools.</td>
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<td>Concept learning</td>
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<td>Signal Learning</td>
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<tr>
<td>1) recall meaning of PO-1 2) explain how to use PO-1 3) recall the situations of receiving PO-1 4) recall the ways to set PO-1</td>
<td>1) illustrate PO-1 with examples 2) state three situations for receiving PO-1 3) set PO-1</td>
<td>Students are familiar with concept of lateral thinking and PO</td>
<td>Activity-3</td>
<td>Signal learning</td>
<td>Lecture method in the Self learning module (SLM) with Examples in form of discussion in class-room situation</td>
<td>---do---</td>
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<td>2) state three situations for receiving PO-1</td>
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<td>Signal Learning</td>
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<td>3) set PO-1</td>
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<td>Principle learning</td>
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<td>Signal Learning</td>
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<tr>
<td>1) recall the terms PO-2 and random juxtaposition. 2) Explain ways and means to use PO-2</td>
<td>1) illustrate PO-2 with examples 2) elaborate the uses of PO-2</td>
<td>Students are familiar with concept of lateral thinking and PO</td>
<td>Activity-4</td>
<td>Signal learning</td>
<td>Lecture method in the Self learning module (SLM)</td>
<td>---do---</td>
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<td>2) elaborate the uses of PO-2</td>
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<td>Signal Learning</td>
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<td>3) set PO-2</td>
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<td>Principle learning</td>
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<td>Activity</td>
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<td><strong>Activity-5</strong></td>
<td>Signal learning Principle learning Lecture method in the Self learning module (SLM)</td>
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<td><strong>Activity-6</strong></td>
<td>Multiple Discrimination Learning Principle Learning ---do--- ---do---</td>
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<tr>
<td><strong>Exercise Sheet</strong></td>
<td>Signal Learning Problem solving method ---do---</td>
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</table>

1) recall the term PO-3
2) state uses of PO-3

1) illustrate PO-3 with examples
2) elaborate the uses of PO-2

Students are familiar with concept of lateral thinking and PO

Students are familiar with concepts of lateral thinking and PO-1, PO-2 and PO-3

Students are familiar with concepts of lateral thinking and PO-1, PO-2, PO-3 and PO in general

---do---
Training module in PO method (TMIPOM)

DR. SUCHETA GUPTA

Professor

Academic Staff College

KURUKSHETRA UNIVERSITY

AND

MS. MEENU AGGARWAL

(2012)

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Activity-4                          16-24
Activity-5                          25-29
Activity-6                          30-35
Practice-Sheet                     36-38
General Instructions

You are going to be trained in a very interesting and special method; PO method through this module. The module is self-instructional and self paced. You can read it according to your own speed. The module comprises some activities. Read these activities carefully. In the end of each activity, there is an exercise sheet. Fill the answers on the response sheet given along with. After completing the answers of all the questions, check the answers given in the end. If all the questions are right, you may proceed to the next activity. In case, any of the answer is wrong, please read the same activity again carefully. In the end of the module, there is an exercise sheet. Attempt all the questions of the sheet.

Rationale:

We are in a constant state of change. We think differently as we gain knowledge and skills in thinking. One generation to the next have different aims, ambitions and morals. What might be seen as a good thing by one generation could be seen as a bad thing by the next. Technology and other inventions now change the world faster than most people can keep up with. What seemed impossible one week can become plausible the next, reality within months and an accepted way of life in a year or two. Whatever was considered to be a fact in the past has now become inappropriate due to changes which have happened since then. Education systems are designed to cultivate the verbal, rational, time based left hemisphere, resulting in half of the brain of every student being ignored. Our educational system, as well as science in general, tends to neglect the nonverbal form of intellect. What it comes down to is that modern society discriminates against the right hemisphere.

We know creative thinking is a skill that can be learned and a positive relationship between teacher training in these methods and student achievement was also identified in studies conducted by Crump, Schlichter, and Palk (1988); Hudgins and Edelman (1986); and Robinson (1987). Focusing directly on 'thinking' sharpens perceptions and lateral thinking. For the same reason various techniques like generation of alternative, brain storming, finding analogies etc. have been explored in the recent times by different researchers. With inclusion of thinking as
well as lateral thinking educational systems have finally given due recognition to this much ignored cognitive function. So Developing ‘Lateral Thinking’ has already become a pedagogical challenge to modern educators. Lateral Thinking is a systematic approach to Creativity (you deliberately use specific steps and techniques to think creatively) In the face of fast-changing trends, fierce competition and the need to work miracles despite tight budgets, better quality and service are not enough. So this self learning module will help you in developing your ability to think laterally. It will bring a desirable change in not only thinking but in perception also. The module will not only be helpful in teaching new methods for thinking differently but also will help in conflict resolution and problem solving.

**Expected Behavioural Objectives:**

After the completion of the training, the trainees are expected to:

1. Recall the terms thinking, lateral thinking, Provocative operation and its tools: random juxtaposition, challenge for change and intermediate impossible.
2. Explain the terms lateral thinking, Provocative operation, random juxtaposition, challenge for change and intermediate impossible.
3. Differentiate between the terms lateral thinking, Provocative operation, random juxtaposition, challenge for change and intermediate impossible.
4. Use the Po method in problem solving.
5. Use the Po method in conflict resolution.
6. Use the Po method in generating new ideas.
7. Use the Po method in thinking differently.
8. Appreciate the role of Po method and use it in day to day life.
Activity -1

Since long educationists have given much importance to intelligence. A child who gets marked intelligent, always gets undue privileges from the teachers. But lately it has been found that having intelligence is not the guarantee to be successful. It need much more than just intelligence. As a cook uses a variety of ingredients and the capability of the available stove, a human-being uses beliefs, ethics, values, morals, principles etc. as ingredients and put them together by the capabilities of human thinking. We can say that intelligence is a potential, and for that potential to be fully used, we need to develop thinking skills. In a way we can say if intelligence is a car, then thinking is the driver of the car.

Thinking is a mental acts that we all do knowingly and even unknowingly. All human achievements are the result of thinking. In this fast changing world, the quality of our future depends largely on excellence of our thinking. Thinking is of many kinds. Out of these we can mark basic two categories. First is the high probability thinking. This is the type of thinking we generally use in any given situation. For example logical and vertical thinking. Whereas other type of thinking is low probability thinking for example creative and lateral thinking. The high probability thinking works like an open block. Open blocks are like wide paths on a road. Because a wide path is available one is blocked from taking the other path. It simply means that wherever there is well established idea or way of thinking, it is extremely difficult to find an alternative way even if one is already available.
Our educational system is full of knowledge. This knowledge gets stored in our brain in form of facts and concepts. Our experience and culture also help us to gain concepts. We use these concepts in our thinking to reach to the conclusions. Thinking generally starts with a problem and ends with a solution. But as our education system gives us answers to most of the problems, so the children are able to develop only logical thinking. In this type of thinking they judge things right or wrong only from already present information. But to develop new ideas we need to develop lateral thinking and creative thinking. As soon as the importance of this type of thinking became clear to the educationists, a lot of work was started on creative thinking. But lateral thinking though quite similar to creative thinking is even today not much explored.

**Lateral thinking**

De Bono defines lateral thinking as methods of thinking concerned with changing concepts and perceptions. Lateral thinking is about reasoning that is not immediately obvious, and about ideas that may not be obtainable by using only traditional, step-by-step logic. So we may say this is out of box thinking.

While Lateral Thinking may be a creative process, it is not meant to be aimless like creative thinking. It is directed towards emerging with new ideas. Lateral Thinking takes to an objective end point while acts of creativity are bound by subjective judgment. Besides creative thinking is very vast and more of a gift while Lateral thinking is proved to be trainable.
Exercise-1

1. If _________ (intelligence /thinking) is the potential, the ability to use this potential is _________ (intelligence /thinking).

2. Educational system provides ___________ (readymade/ new and unique) answers to all the problems.

3. Open blocks are ___________ path available that prevents us from taking ___________ paths. (alternative/ wide)

4. Out of these which one is high probability thinking

   - Logical and vertical
   - Creative and lateral

5. Creative thinking is bound to ___________ (subjective/ objective) judgment.

6. Lateral thinking is ___________ (aimless/ goal oriented)

7. ___________ thinking is out of box thinking. (lateral/ vertical)

8. Lateral thinking is about reasoning that ___________ (is/ is not) immediately obvious.

Answers – Exercise-1

1. Intelligence, thinking

2. Readymade

3. Wide, alternative

4. Logical and vertical

5. Subjective

6. goal oriented

7. lateral

8. is not
Activity-2

Lateral thinking is a way of thinking used to create new and original ideas. It is used to solve the problems in new and different ways. Edward De Bono gave a special tool “PO” for developing the lateral thinking. “PO” means provocative operation or provoking operation. It is an anti judgement device. In this technique a provoking idea is suggested. This idea may not be a good idea. But it can be used to move thinking to a new place from where new ideas may originate. Let us understand the technique in a general way. On a busy road when traffic runs smoothly, every one follows the same path. So the side lanes get ignored.

Now if the road is blocked for some time we start using the side lane. The same applies to our thinking. We all think in a very obvious manner. But “PO” is a thought provoking tool. It blocks the obvious way of thinking and helps to create new thinking.
How to make use of “PO” in education

Training in this method can be started by making deliberately a statement that may have no meaning at all. Term such statements as provocation.

For example ‘cars should have square wheels’

Though the statement looks foolish but don’t reject it. Label it by writing “PO” in front of it.

“PO: cars should have square wheels”

This statement can be used to provoke new ideas in the students. For this we can use specific tools of “PO” method. There are three tools of PO namely PO-1, PO-2 & PO-3.

These tools block the obvious ways of thinking. So the students start thinking in new and different ways.

Exercise-2

1. Thinking is used to ___________ our problems. (solve/stop)
2. Lateral thinking is a way of thinking used to create __________ (new & original ideas/old & well proved ideas)

3. PO is a tool to develop ___________ thinking (Lateral/Vertical)

4. Full form of “PO” is _____________ operation (provoking/proving)

5. “PO” _________ obvious way of thinking and helps to ________ new thinking (blocks/create)

6. Name three tools of “PO” ________________________________

7. How can we start training in “PO” method

**Answers – exercise -2**

1. Solve

2. new & original ideas

3. Lateral

4. Provoking

5. Blocks, create

6. PO-1, PO-2 & PO-3

7. Training in this method can be started by making deliberately a statement that may have no meaning at all. Term such statements as provocation. Though the statement looks foolish but don’t reject it. This statement can be used to provoke new ideas in the students.

**Activity -3**

1. **PO-1 (Intermediate impossible)**
Intermediate impossible are ideas or statements which are illogical and impossible. We may get such ideas while thinking over our problems. As these statements are illogical and absurd, we are trained to reject these statements immediately.

PO-1 is a tool that helps us to use these statements to provoke new ideas. PO-1 trains us to use these statements in three ways for generating new ideas.

a. If instead of rejecting the idea we think over it carefully, we may find some good points in it.

b. Idea may be wrong in our present situation but after sometime, we may find it correct. Perhaps we may feel a need to change the current situation.

c. Idea may look wrong even now but it may work as a stepping stone to new idea.

For example- Street cleaning is a big problem in cities. Nobody takes the responsibility of dirty streets. Now let’s frame an immediate impossible

“PO: The best way to clean street is to dirty them more”

The statement makes no sense; still we can use it to generate some solutions.

For example- we can scatter tiny bits of colored paper on streets. A selected color can be scattered on a selected day. Say we scatter red colored bits on Monday. Now observe how long it remains on the road. So we can know the efficiency of the sweepers and the authorities.
Using PO-1 in class-room teaching

Following is an example of the situation where a teacher uses this technique in his class.

<table>
<thead>
<tr>
<th>P.T. talk</th>
<th>Student talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students, to improve our educational system, I have an idea “School should have wheels”</td>
<td>Sir, we can’t fix wheels to the schools.</td>
</tr>
<tr>
<td>What do you think about the idea?</td>
<td>Students are provoked to think.</td>
</tr>
<tr>
<td>O.k. it is natural to judge such statements wrong.</td>
<td>Yes sir, we have seen some mobile vans carrying books for sale.</td>
</tr>
<tr>
<td>But let’s not reject it. Just think over it</td>
<td>Students laugh at the statement, but are motivated to think differently.</td>
</tr>
<tr>
<td>Now, do you get some idea from the statement?</td>
<td>Yes Sir, Mass media like Newspapers, TV, and Radio can be used to take education to the children’s home.</td>
</tr>
<tr>
<td>Well, Can we use mobile vans to carry study material to the children’s home.</td>
<td>We can have a study centre or library in a mobile van.</td>
</tr>
<tr>
<td>O.k. it means we can have books on wheels.</td>
<td>Students are able to understand the deep meaning of the statement till now.</td>
</tr>
<tr>
<td>Is there some other way to take education to home?</td>
<td>Yet one student may question,</td>
</tr>
<tr>
<td>Yes, it is already being done.</td>
<td>Sir, why not to provide better transport facilities to children.</td>
</tr>
<tr>
<td>Anything else?</td>
<td>Students agree with the teacher and</td>
</tr>
<tr>
<td>Yes, today it may seem impossible. But may be tomorrow we have a study centre or library in a mobile van. So we can say, we will have wheels on the school.</td>
<td></td>
</tr>
</tbody>
</table>
Now the question arises, from where we can have intermediate impossible. There are three possible situations when we can have intermediate impossible:

a. We get such an idea in our own thinking.

b. Somebody comes to us with such an idea.

c. We set it deliberately.

First two situations are natural. By training we can learn to use these intermediate impossible. But we must also learn how to set an intermediate impossible to solve our problems.

**How to set an intermediate impossible**
Whatever idea or thought we have, we can reverse it, exaggerate it or distort it to convert it into intermediate impossible.

For example- Idea is to prevent copying in the exam.

a. Reverse it- “PO: allow copying in the exam”

b. Exaggerate it- “PO: Shoot children for copying in the exam”

c. Distort it- “PO: Prevent writing in the exam”

All the three ideas can be used as intermediate impossible to generate a number of new ideas as already discussed.

Exercise-3

1. Fill in the blanks

a. PO-1 is called intermediate ____________ (Possible/impossible)

b. Whenever we get a wrong idea, we _________it (accept/reject)

c. Instead of rejecting a wrong idea, we can term it as _____________ (intermediate impossible/solution)

2. State true or false

a. We can frame an intermediate impossible by distorting, exaggerating or distorting a statement.

b. If we hang on a wrong idea, it only results in wastage of our time.

3. Set intermediate impossible from the statement
“Parents should pay money to schools to teach their children”

4. Can you derive some idea from this intermediate impossible. “Health and hygiene awareness should never be imparted to any student”

**Answers Exercise 3**

1. a) Impossible   b) reject    c) intermediate impossible

2. a) true       b)true

3. a) reverse it-

   d. “Parents should pay no money to schools to teach their children”

   It may lead to the idea that education should be free to all.

   b) exaggerate it-

   “Parents should pay money to schools to leave their children”

   It may lead to the idea that school fee should be paid after completion of session.

   c) distort it-

   e. “schools should pay money to parents to teach their children”

   It can lead to ideas relating to stipends or scholarship for brilliant or poor children

   It can also be used to give a boost to sarva-shiksha abhiyaan.

4. It may lead to an idea that the concern about health and hygiene should be extended to even those who are not students or even illiterates.

Or that general awareness is not sufficient. It should be in form of workshops etc.
Activity -4

PO-2 (Random Juxtaposition)

It is the simplest technique of PO method. When we are solving our problem we think only about the issues related to the problem. For example- if we think about education, we start thinking of books, students, teachers, teaching methods etc. So we end up thinking nearly in the same way every time. Now the idea is to divert thinking to a totally unrelated topic. So our obvious way of thinking is blocked for a while and we get a new starting point to think over the problem.

So PO-2 simply is a tool that provides a new starting point to our problem. As this thinking point is unrelated to our problem. So it helps us to think differently.

How to use PO-2

To solve a problem, instead of thinking about only the issues related to the problem, randomly pick any word. The word can be picked from either-
1. a list of words
2. from dictionary
3. from surrounding items

Selecting a word randomly is called Random Juxtaposition. Now merge this word in the problem in hand to get a new solution. It can be done by making a bridging idea based on the word. To make a bridging idea we need to look
1. physical attributes of the word
2. principles behind it
3. its shape
4. its similarities/dissimilarities with the problem
5. its advantages and disadvantages etc
Let us take an example where teacher uses this technique to provoke children so as to solve the problem in hand.

<table>
<thead>
<tr>
<th>P.T. Talk</th>
<th>Student talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students, Have you seen neon lights.</td>
<td></td>
</tr>
<tr>
<td>You are right, son. Neon lights are used in signboards of big malls and shops.</td>
<td>Yes sir, Neon lights are used in advertisement boards.</td>
</tr>
<tr>
<td>So can we use neon light to solve the problem of universal education.</td>
<td>Sir, we can have neon lights in schools.</td>
</tr>
<tr>
<td>Where do you see the Neon lights?</td>
<td>Neon lights are used in streets, shops, everywhere.</td>
</tr>
<tr>
<td>So why should students go to school for education.</td>
<td>Yes Sir, There should be street screens with projectors or even speakers to educate children.</td>
</tr>
<tr>
<td>This is a good idea. Anything else you know about Neon lights.</td>
<td>Neon lights are entertaining.</td>
</tr>
</tbody>
</table>
So can schools be entertaining?

Good suggestion. O.K. Anything else?

So what do you suggest?

Great. And for what these Neon lights are used.

So what is your idea?

How can we do that?

Great idea!

Well suggested. Any other feature of Neon lights?

So what do you want?

And how is that possible?

You mean to say a student of say graduation should teach a student of say fifth standard. That is a great thought. Now something else about Neon lights? So, any suggestion.

Yes Sir, Schools and education should be made more entertaining for children. Education should be more of fun. There should be more activities, games, film-shows in the school.

Neon lights are attractive.

Study material, books etc. should be made more attractive for children.

Neon lights are used in advertising Education should use this advertising to fulfill its purpose.

Advertiser should pay some tax (say 10%) to government for education.

For every 10 advertisements, there should be one educational advertisement for an advertising agency.

Some neon lights are circular and rotating.

Education system could be circular.

After completing a certain level of studies, students should start working as teachers and their results should include the results of their students.

Why not Sir?

They work best in nights.

Night schools and evening schools should be encouraged for working people and poor children.

Children are well provoked and discussion
Things to watch out while using this technique-

1. Some words work better for a particular problem. So we can try more than one word, one after another.

2. Random word should never be selected. It should always be randomly picked.

Example-2 – Use random word, Onion for Noise Pollution.

“Noise Pollution PO Onion”

Building Idea-1

Onions grow underground.

Solutions

I. The traffic should move underground.

II. There should be underground rooms for relaxing.

III. Sound proof rooms can be made underground

Building Idea-2

Onion has a cover that protects internal layers from spoilage.

Solution – There can be some earflaps or covers to protect us from noise.

Building Idea-3

We close our eyes while cutting onions due to tears.

Solution – We should be trained to close our self from the external sounds or noise by Yoga or meditations.

Building Idea-4

Onions are actually the roots.

Solution – Root cause of noise pollution should be focused.
Building Idea-5

There are special techniques and boards to cut onion.

Solution – There should be special devices to absorb noise.

Building Idea-6

Onions cannot be eaten alone. We eat them with some other food items.

Solution – People should be trained not to produce sounds that are not required for their functioning.

Building Idea-7

During fasts, onion is not eaten.

Solution – There should be a particular time in a day when producing sound should be avoided.

Building Idea-8

Onions have layered structure. Outer layers are removed to reach to inner soft layers.

Solution – Houses can have layered walls to cut off from noise.

How does PO-2 work

There are so many ideas stored in everyone’s brain. Even if we start with two unrelated ideas, they will ultimately get linked up. Therefore, if we bring in a random word, it gives a new entry point for the problem. So we get a way to break continuity and so think differently about our problem.

As Attitude – PO-2 is not only a problem-solving tool but it can also be used as an attitude.

The attitude of open mindedness, we just open up to external influences and search solution in them instead of shutting away from them.

Exercise-4

1. Fill in the blanks
a. PO-2 is called as _______________________

b. This technique makes use of ___________ words (Random/particular)

c. Random words can be picked from _____________________

d. After picking a random word, we need to make a ___________ idea based on it. (bridging/breaking)

e. What main points do we see in a random word?

2. State true or false

a. Random word can be selected by choice.

b. Using random word leads us to new way of thinking

c. We can use it any number of times with any number of random words for a single problem.

d. It trains to cut off from external influences and focus on the problem.

3. You want to open a school that is unique in its features. Try to get some ideas from word Telephone. (School PO Telephone)

4. A notorious student Ramesh in your class is causing you a lot of trouble. Try to solve the problem using random word Pillow. (Notorious boy PO Pillow)

**Answer sheet Exercise-4**

1. a) Random Juxtaposition  b) Random

c) a list of words, from dictionary or from surrounding item  d) bridging

e) Physical attributes of the word, principles behind it, and its shape, its similarities/dissimilarities with the problem and its advantages and disadvantages

2. a) false  b) true  c) true  d) false
3.) We can look at the features of telephone like-

It has dial up system by which we get to talk to different people. Similarly we can have a facility in the school where a child can consult with any of the teacher by pressing some buttons.

Today we have mobiles which move with a person everywhere, so we can have some pre-set or recorded programs which must be accessible to the students everywhere.

Today everyone carries an individual phone. Therefore, there should be some personalized time for every child.

Mobile is for all. May be we have schools also for everyone. For would-be mothers, for retired people, for newly married and so on.

Similarly we can have plenty of ideas.

4) Pillow is used while resting. Energy of Ramesh can be used to discipline the class and other activities so giving some rest to the teacher.

Most of the pillows can’t be machine washed with other clothes, and need special care like dry-cleaning. Ramesh also may need some special treatment like extra time.

Pillow is kept under the head. Seat of Ramesh also should be close to teacher. And so on.

**Activity -5**

**PO-3 (Challenge for Change)**

We are in a constant state of change. We think differently as we gain knowledge. What we considered to be a fact in the past may become inappropriate due to the changes that have happened since then. So current idea or a product may need change due to change in human values or life-style. But we are trained to accept an idea if it is right. In such case we feel that there is no need to look for another idea. And if the idea is wrong we reject it.
TRADITIONAL WAY OF THINKING

So we start searching for a new idea only if we reject the old. PO-3 is a tool that trains us to challenge an idea without judging it right or wrong. It is like a belief, “The present way of looking at the things may be right. But let’s search for a new way”. We don’t mark anything right or wrong. However, just investigate what will happen if the facts were not true. Therefore, instead of rejecting an idea we put it aside and search for alternative.

So in this technique we can challenge any idea. It is like blocking a busy road temporarily. So that people may look for alternative roads.

If the alternative idea is useless, we can return to the original idea.
How does PO-3 works

An idea is made up of the concepts. And the concepts are the meaning attached to the words. The time is changing fast. With the changing time some concepts also need a change. For example there was a time when we learned that a chair has four legs. So many of them have four legs. But market is flooded with chairs having single on even no legs. Even the concept bigger the better has lost its value. Today the smaller a gadget better it is. So there are so many ideas that were correct earlier. But they need to be changed today. PO-3 is a tool to change an idea or any concept related to that idea. To use challenge of facts as a stimulus for new idea, we can start with any idea.

For example – “A society must not interfere with the freedom of the individuals”. Most of the people believe that this statement is true. But though we may agree with it in the first look yet we can challenge this statement completely or any part of the statement without rejecting the statement.

The part you want to challenge, write PO before it.

Say in the above statement, we challenge the concept of freedom then write

“PO freedom”

Now we can challenge the concept freedom. As giving freedom to one person may mean interfering with others. For Example – If a man has a freedom to play his radio loud, he interferes with the freedom of peace for other people. Freedom to smoke, freedom to express, freedom to information there are so many concepts where freedom of one person may cause trouble to so many. So let’s we change freedom with non interference only. So a person should be free but he should not interfere with others.

So in this way we can challenge any fact or a part of fact. And then use that challenge to give birth to new ideas. For example we all know that the roads are the busiest in cities at office hours. So we may say that- “Urban transportation is impossible as everyone wants to go to work at same time”. Challenge this statement for the change. Let us only challenge one word in it. We just challenge the word time. “PO time”

Now we can think of new ideas where different section of people may work at different hours of day. Like office hours may be different from school hours.
So by using this method we can challenge anything for change. It may be a small thing like the handle of cup or a well known fact like “Educated people are more civilized people”. Then we can use challenge of facts as stimulus for new ideas.

PO-3 can also be used as an attitude. Here we accept that not only our opinion but other’s opinion also may be right. Secondly, even the most established facts may need improvement.

Exercise-5

1. What does PO-3 mean
   a) Challenge for change
   b) Intermediate impossible
   c) Random Juxtaposition

2. Fill in the blanks
   a) We hold an idea if it is _________ and reject it if it is________(right/wrong)
   b) PO-3 is a tool to __________ an idea ----------------
   c) The meaning attached to the words are called _________

3. Can you challenge the statement
   “Criminals should be punished for their crimes”

Answer sheet Exercise-5

1. a )

2. a) right , wrong
b) challenge, without judging it right or wrong

c) concepts

3. We can challenge any part of this statement. So let us start with word criminal. PO ‘criminals’. In general sense criminals are the persons whose crime has been proved. But there are so many influential people who escape taking help of law. so it need to be changed. Then there are different people who commit crimes due to different reasons. Some of them are habitual, others may be needy. So putting them in the same category is not justifiable. And so on. Then we can challenge the word punished. Criminal Psychology has proved that the criminals are sick people who suffer from some kind of psychological problem. So they need treatment instead of punishment.

Activity -6

General use of PO

PO in general can be used as a language tool. In our day to day thinking we use yes or no to accept or reject an idea. In lateral thinking we use PO to have some more flexibility. Instead of rejecting or accepting an idea, we use it to get to the new ideas. PO does not judge whether a concept is right or wrong. It only shows us that concept is not unique, and we can look at things in a different way. It is a way to say WHY.

We can use PO in different situations for solving our problems or conflicts. Whenever facing a problem, instead of picking the most evident solution we can use various tools of PO to think totally out of box or we can say laterally.

Our brain is habitual of making patterns. It is well trained to adjust new information in relation to the old information and experiences. So a sort of sequence trap or a pattern is formed. This brings continuity in our thoughts. So ultimately we end up thinking in a very similar way. PO in general along with its special tools PO-1, PO-2 and PO-3 brings discontinuing in our thoughts and channelizes them to a new direction. So the ultimate purpose of PO as a whole is to produce a totally new way of thinking by de-patterning. The use of PO is unlimited. It can be used to

1) search new solutions of the problem

2) to discover something new
3) to think differently

4) Even in case of arguments where we can acknowledge that our way of thinking is not only the way of thinking.

So we can practice PO in any situation. Initially it can be done in practice session. And then it can become a routine.
**Exercise-6**

1. PO can be used as a --------- tool.

2. PO channelizes our thoughts to ____________ Direction (Old/New)

3. The ultimate purpose of PO as a whole is to produce a totally new way of thinking by _________________ (patterning, de-patterning)

4. Write various uses of PO.

**Answer sheet**

1. Language
2. New
3. De-patterning
4.
   a. search new solutions of the problem
   b. to discover something new
   c. to think differently
   d. even in case of arguments where we can acknowledge that our way of thinking is not only the way of thinking.
Practice sheet

Tips for revision

Tips for revision

To learn this method, and to solve the problems relating to it, first thing is to set or use a provocation which helps to divert the thoughts to new directions. Following are the ways-

1. Received PO- When you receive a provocative idea from some other source.
2. Reversal- Reverse a situation eg. We always pay for purchases, so imagine that purchases are paid for. Many malls are using this idea to increase their sale. They set a limit, say on purchase of 2000 you get a coupon of 200 Rs.
3. Escape- escape from the for-granted features. Some features are unique in all the things that differentiate it from others. Just drop these features. For eg.- A bus is a mean of transport with some sitting facility. But some local buses these days have no seats so as to increase the capacity and so decrease the cost of travelling.
4. Wishful thinking- related to mild desire or fantasy. Make a wish whether feasible or not. For eg.

   PO cars are made of noodles.

   PO house can change the shape when desired

5. Outrageous – framing an idea that seems impossible.

   PO cows can fly.

   PO everyone votes everyday on government decision.

Practice questions

Following are some questions. You are expected to answer these questions as differently as you can. For the same you can use any or all the tools of PO.

1. Set an escape type provocations from the following objects.

   a) bicycle  b) cricket  c) school  d) park
Hint- pick features that you take for granted. Now cancel or drop that feature.

2. Set reversal type of PO
   a) Playing cricket. b) marriage c) pocket money

   Hint- Take the normal direction of action. Now reverse it.

3. Setup wishful provocation-
   a) Parents b) bed c) computer d) money

   Hint- you can make phrases like I wish or it would be nice if

4. Set up 3 outrageous type provocations from-
   a) Television b) copy

5. Design furniture by using random word ‘bee’

6. A man is driving his car. He turns on the radio, listens for five minutes, turns around, goes home, and shoots his wife.

   Hint- Escape from the expected meaning of shoot and negativity.

7. One of Johnny’s dearest loved ones binds him to a chair, but doesn’t mind.

   Hint- Johnny is a kid. The chair is a seat in a car. One of Johnny's parents put his seatbelt on for him.

8. A man and his son are in a car accident. The father dies on the scene, but the child is rushed to the hospital. When he arrives the surgeon says, "I can't operate on this boy, he is my son!"

   How can this be?

   Hint- surgeon can be a lady.

9. A man is wearing black. Black shoes, socks, trousers, coat, gloves and ski mask. He is walking down a back street with all the street lamps off. A black car is coming towards him with its light off but somehow manages to stop in time. How did the driver see the man?

   Hint- Maybe it’s not night.

10. A woman shoots her husband. Then she holds him under water for over 5 minutes. Finally, she hangs him. But 5 minutes later they both go out together and enjoy a wonderful dinner together. How can this be?
Hint- Focus on shoots, shooting carry one more meaning.

11. A man buys rice at 15 Rs per kg from farmers and sells them at 5 Rs. per kg in a remote village. As a result of this he becomes a millionaire. How come?

   Hint- Maybe he started as billionaire.

12. Some months have 31 days, how many have 28?

   Hint- All

13. Is it legal for a man in California to marry his widow’s sister? Why?

   Hint- Focus on ‘his widow’

14. If you have only one match and you walked into a room where there was an oil burner, a kerosene lamp, and a wood burning stove, what would you light first?

   Hint- Match is required to light all.

15. A servant in the butcher shop is 5' 6" tall. What does he weigh?

   Hint- What does a butcher weighs, Meat.

16. How could you rearrange the letters in the words "new door" to make one word?

   Hint- The answer is already given, one word.

17. What is the eleven-letter word that most people spell incorrectly?

   Hint- Again the answer is given, incorrectly.
General Reaction scale for Training Module

Name:                                                          Name of Institution:
Date:                                                           Sex:

Instructions

You have gone through a training module right now. The content as well as the method is new to you. So you must have formed an opinion about this method. We would like to know your opinion with the help of statements given below. There are five choices given against each statement. These are strongly agree (S A), Agree (A), undecided (U), Disagree (D), Strongly disagree (S D).

Read each statement carefully. If you strongly agree with the statement put a tick mark (✓) on S A. If you agree with the statement put a tick mark (✓) on A. If you feel undecided about the statement put a tick mark (✓) on U. If you disagree with the statement put a tick mark (✓) on D. If you strongly disagree with the statement put a tick mark (✓) on S D. Please feel free in giving your opinion. Your response will be kept confidential.

While learning through this method, I feel that…..

1. This method is highly motivating      SA  A  U  D  SD
2. This module helps in developing a new approach in life.   SA  A  U  D  SD
3. Different strategies of module are very interesting.     SA  A  U  D  SD
4. The module can help in inspiring new ideas.               SA  A  U  D  SD
5. The module is less applicable for large groups           SA  A  U  D  SD
6. The module is dull and boring                            SA  A  U  D  SD
7. The module gives no clarity about the concept.            SA  A  U  D  SD
8. The module is supported with a lot of real life examples. SA  A  U  D  SD
9. The module is very lengthy and time consuming.            SA  A  U  D  SD
10. Intellectual climate is of higher order                  SA  A  U  D  SD
11. There is lesser scope for teacher student interaction   SA  A  U  D  SD
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<tr>
<td>12. It is less difficult to maintain discipline in the class</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
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<tr>
<td>13. The learning is better with this method</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
</tr>
<tr>
<td>14. This method helps to develop thinking independently</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
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<tr>
<td>15. This method provides sufficient scope to promote innovations and new thinking.</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
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<tr>
<td>16. This method will help people in thinking out of box</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
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<tr>
<td>17. The module is an eye opener for me</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
</tr>
<tr>
<td>18. I will love to learn more about this method</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
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<tr>
<td>19. I will like to apply the ideas given in my day to day life</td>
<td>SA</td>
<td>A</td>
<td>U</td>
<td>D</td>
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Willingness Scale for Implementation of Module

(For Teacher Educators)

Name:                                                         Sex:

Name of Institution:                                    Age:

Instructions

You have been introduced to a new type of thinking by a training module. You as a student teacher must have formed some opinion about this module as well as the lateral thinking we would like to know your opinions with the help of statements given below. There are five choices given against each statement. There are Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (DS). Read each statement carefully. Put a tick mark (√) in front of your choice. For example if you strongly agree with statement, put a tick mark (√) on “SA”.

Please feel free in giving your opinion. Your response will be kept confidential.

1. I don’t understand the theory underlying the module     SA     A      U      D      DS
2. I have lost faith in educational innovations              SA      A      U      D      DS
3. I don’t have time for its preparation                     SA      A      U      D      DS
4. Student teachers of my institution will find it           SA      A      U      D      DS
difficult to understand even the theoretical part of
the module
5. My head of institution will give academic support        SA      A      U      D      DS
for implementing the module

6. My head of institution does not allow any change          SA      A      U      D      DS
In the time table
7. I am ready to implement it if I get recognition           SA      A      U      D      DS
8. This module need not be applied as it will not improve teacher training program

9. Use of this module in our teacher training institution is not practicable

10. Through practice I can develop abilities needed for implementation of module

11. I can implement it in spite of all types of difficulties

12. List down essential requirements of module for implementation (write at least three points)

13. List the possible hindrances for implementing this module (give at least three hindrances)

14. Given the present condition of teacher education institution, give suggestion for its effective implementation (write at least three suggestions)
Interview questions:

Q. No. 1: So, ........ How are you?

Q. No. 2: Have you read the training module carefully?

Q. No. 3: Was there any type of disturbance, when you were reading it?

Q. No. 4: What type of experience was it?

Q. No. 5: Do you find it effective/useful?

Q. No. 6: Do you find some changes in your thinking after this training?

Q. No. 7: How can it be used in normal classroom situation?

Q. No. 8: Do you have any suggestions for its improvement?

Q. No 9: Do you want to know more about the method?

Q. No 10: Would you like to use the method in your day to day life situation?

Q. No 11: Do you notice any behavioural change in yourself after the exposure with the module.

Q. No 11: Has anybody noticed any change in you after the exposure with the module.

Q. No 11: Anything else, you want to say.