

MODULE 2

Class Title: Lateral Thinking

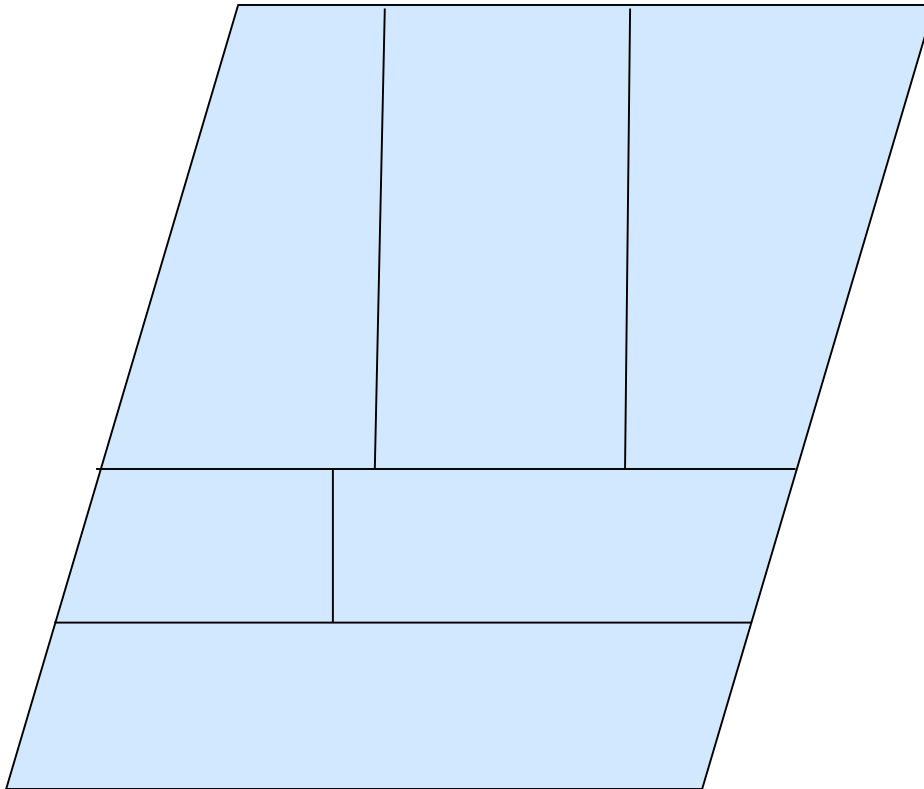
Aim of the lesson: To learn to think differently

Category: Interpersonal Skills

Lesson Format: Activity and power point presentation with discussion

Material Needed:

Puzzle 1: (slide 2)



Draw the above diagram on A4 chart paper. Cut along the lines. You will get 6 shapes. Make as many sets as the number of groups of students.

Puzzle 3: (slide 14)

Paper and pencil for all students

Puzzle 4: (slide 24)

Paper and pencil for all students

What will you do in class:

Step 1:

Start the class with an activity. Divide the class into groups. Explain what they are supposed to do (slide 2) and give each group a set of 6 shapes you have cut out. Give them 5 minutes to work in their groups.

Step 2:

When the time is up, tell the students to stop. Mostly students are unable to come up with an easy to define shape because most of them are trying to make a rectangle or a square with the given shapes. Show them slide 3. This is to help them realize that we tend to get stuck in our preconceived notions and we need to learn to think differently. Explain the working of the human mind (slides 4,5)

Step 3:

Ask 4/5 students to come up and try solving the maze on slide 6 with the help of a pointer.

Step 4:

This activity will reinforce the fact that we are governed by our self-imposed assumptions. We act according to what we have learnt and made into a habit.

Step 5:

Explain that our mind can be used in different ways and that can make life interesting and make us more open and able to process information in a constructive and positive way. Introduce ‘Lateral Thinking’. (slides 8-13)

Step 6:

Give paper and pencil to each student and ask them to solve the puzzle (slide 14). Ask the students to come up with as many solutions as possible. Give 5 minutes to work individually. Give a hint (slide 15)

Step 7:

When the time is up, ask the students to stop. Most students are able to come up with 3/4 solutions. Show slides 16-18 and make them see the possibilities.

Step 8:

Play the guessing game (slides 19-22). This is to make the students realize that guessing may or maynot work.

Step 9:

Introduce the second technique of lateral thinking. Give students paper and pencil and ask them to solve the puzzle (slide 24) individually in 5 minutes.

Step 10:

Show the answer (slide 25). This is to help students realize that we keep working with our self-imposed assumptions but we actually need to think outside the box.

Step 11:

Explain the 'Why technique'. (Slides 26-29)

Step 12:

Explain 'important rules' and the technique of 'factorization'. (slides 30-32)

Step 13:

Conclude (slides 33-34)

Transcription of class:

MODULE 1

Class Title: Lateral Thinking

Aim of the lesson: To understand how righteous deeds are deposited with Allah (swt), the benefits of which we will get later

Category: Personal Development

Lesson Format: Power point presentation with discussion

Handout: in folder

Greeting to students) *AssalamalaikumwaRahmatullahiwaBarakatuh*

(Taooz) Aoodhubillahi min AsShaytanirRajeem

(Tasmiyah) BismillahirRahmanir Raheem

(Du'a) Rabbishrahlisadriwayassirliamriwahluluqdatummillisaniyafqahuqawli(Surah Ta-Ha 20: Verse 25-28)

Today, we shall be doing something different. We shall do some exercises in order to learn a different style of thinking. I would like you all to sit in groups of four. The first exercise that we will do is that I will give each group 6 cardboard pieces and each group has to try to put these pieces together to form a solid shape that can be easily described. You have 5 minutes to do this activity.

(After 5 minutes: None of the groups has been able to form a solid definable shape)

Alright, your time is up. I would now like you to tell me what shape were you trying to make?

Student 1: square

Student 2: rectangle

Is there anyone who has a different answer?

You see that is how our mind works. Most of the time, we want to go for the most obvious solution. When we saw these pieces, our mind said that all these pieces must fit together to form either a square or a rectangle because they are easy to define. If we look at the solution, we realize that these pieces fit perfectly together and form a parallelogram, which is also a definable shape.

Now let's think about the things that we do as a routine. You all go to school? Every day, you follow the same route? Have you ever tried searching for an alternate route or a short cut?

We only explore when we get stuck or when we are wrong. We tend to stop when we get to the right answer. On the way to school we are so used to the old pattern that we fail to notice the alternatives. You know that it was the practice of Prophet Muhammad (pbuh)

that he would go for the *Eid* prayers through one route and return by another. This way not only would he be alert about his surroundings but he also got to meet more people that way.

Our mind is like a landscape. When it rains ridges and depressions are formed in a landscape. When it rains again the water automatically settles in these depressions. Similarly, we get bombarded by information from all around. This information hits our mind at different places. Ridges and depressions are formed in our mind. These create a pattern which becomes our memory. Now, whenever any new information comes in it starts to follow the pattern already created. In other words our mind keeps arranging the information in a typical, old pattern. Hence, we think in typical, most obvious manner.

Now let's try another activity.

I would like 5 volunteers to come up and with their finger/scale/pointer, trace the path on the slide they want to take in order to join the apple to the tree.

(5 students try. Most of them start with the apple and try ending up at the tree)

JazakillahKhair. You may now go back to your places.

Now, did you notice that most of the students started off from the apple and were trying to reach the tree? Actually, that is how we have been taught to solve such puzzles. When we are small, we are taught the when solving such mazes, we should always start at the beginning. Now this is a self-imposed assumption. This might be true if you are taking part in a competition where some rules are set. But in a scenario where there is no competition and no rules, then you have the freedom to explore. When I explained the puzzle did I say anything about a competition and did I give any rules? No, I didn't. Therefore you had all the opportunity to explore whichever way you could think of.

Now, a lateral thinker would have started backwards from the tree because starting backwards would have led to a quicker solution.

I hope that these two exercises have made you realize that we all have a very set way of thinking. We generally look at the most obvious and don't explore. So, would you like to learn some new ways of thinking? Open up your mind and think differently?

Students: Yes

Alhumdulillah, so let's learn some techniques of lateral thinking.

Has anyone heard the term Lateral Thinking before? Does anyone know what it is?

Student: It is a tool that teaches different styles of thinking.

Yes, *Alhumdulillah*, you are absolutely right. You remember, we just talked about how patterns are formed in our minds? Well,

- Lateral thinking restructures old patterns that are already in our minds
- It creates new patterns
- It helps us to go for the least obvious path
- It helps us to see new ways of looking at a thing

And the benefit of lateral thinking is that it increases our efficiency.

Now let's see how can we do lateral thinking.

The first technique is: generation of alternatives.

Any particular way of looking at a thing is only one of many ways, **NOT the only way.**

Keep searching for alternatives even after reaching the most promising one.

In order to understand this technique, let's take an example. Let's suppose you have to search for an image on the internet for your social studies project. So what you should do is that when you find the first right image, don't stop here. Keep looking for more, collect some more images and then choose from them.

Now the catch here is that we tend to go on and on and waste time. So set a quota. Decide from before that I will search over 5 pages of the Google images.

Let's do another puzzle: Divide the square into 4 equal pieces (slide 14 and 15). Let's see how many alternatives you can come up with. You have 5 minutes to do this.

(After 5 minutes) Okay, let's see what you have been able to come up with? Please tell me how many solutions have you been able to come up with?

Student1: 3

Student 2: 3

Student 3: 4

Most students have been able to come up with 3 solutions and a few of you have been able to do 4. Now let's see how many solutions are possible. (slides 16, 17, 18)

Any line passing through the center of the circle and touching the sides in a manner as if reflected by the center line will divide the square into four equal parts.

You see we tend to think in terms of straight lines and primary shapes whereas there are so many possibilities if you can get away from the set patterns.

Do you like guessing what people are up to? Let's see how good you are at this. What do you think is happening in this picture?

Student1: playing cricket
Student 2: trying to catch something
Student 3: skate boarding
Well, you are right.

What is this man doing?
Student 1: Jumping off the building
Student 2: Jumping up
You are right. He is jumping up a trampoline

You have just practiced the second technique, which is to challenge our assumptions. You see we all tend to assume things. The pictures that we just saw, we were assuming according to our perceptions. Then we practiced the first technique and generated alternatives and arrived at the right answer.

In order to understand our assumptions let's do another puzzle. You have five minutes for this. (Slide 24)

You have to join all these 9 dots with 4 straight lines without lifting your pen from paper.

(After 5 min. no one was able to do it)

(After showing the solution, slide 25) You see, the mistake that you all were making was that you were not thinking beyond the dots. You assumed that you have to stop at the last dot. Who said we can't go out as long as the pen doesn't leave the paper?

One tip to get into lateral thinking is to ask "why". Ask 'why' even when you know the answers because asking makes us look deeply and differently at a thing.

"Why are the wheels round?"

Student: because that is the best shape to give movement.

Alhumdulillah, you are right.

Prophet Ibrahim (as) did not believe anything and everything that came his way. He observed and questioned till he reached the right conclusion. This is clear from the story mentioned in Quran in Surah Al-Anaam, ayaat 75-79 (slide 27).

The people around Ibrahim (as) were idol worshippers. In fact they worshipped everything from the stars to the sun. Now, Ibrahim (as) did not just accept what everyone was doing. He did some lateral thinking and **questioned** what was considered a norm by all. Since the people around him worshipped the stars and took guidance from them so he first started thinking about them. He could see that the star is bright and it looks beautiful so these are some qualities that one would like to see in a being that is supreme but later he realized that the star goes away. It is not always there to help and guide you and that made him realize that this quality of not being there always is not good enough for a

being that is supposed to be a master of all. This realization made him question and judge every other creature that the people around him were worshipping. He questioned the moon being a deity and also the powerful sun. Ibrahim (as) had used his questioning mind to understand that everything comes and goes and all the stars and the moon and the powerful sun follow a pattern. They themselves appear to be obeying somebody's command so there has to be someone behind all this discipline and order that is present around us. He used his ability of observation and arrived at the conclusion that there is a being behind all these apparent things.

There is a Supreme power who is always there who is actually controlling the coming and going of all the creations and he declared that he is going to bow down to the only Supreme Being, who is the creator and controller of everything else and that being is so powerful that He does not need helpers or partners to run the universe. He didn't want to settle for anything less. He wanted to submit himself completely only to the Most Powerful and did not want to be amongst those who fall for surface strengths and weak deities.

For those of you who plan to go into creative fields like architecture or any other type of designing should start asking why are things the way they are.

Why can't a house be upside down?

Why do walls have to be straight?

Why do gardens have to be outside the house?

You don't have to answer any of these questions but when you think about them your mind will start moving towards creative solutions.

It was because of a creative idea that the Muslims were able to win the battle of Trenches, with the permission of Allah (swt). You all know about that battle? Huge trenches were dug around the city of Madinah which stopped the enemies from attacking.

Similarly, Prophet (pbuh) ordered each Muslim to burn a bonfire individually at the time of conquest of Mecca. When the Meccans saw the huge amount of fires from a distance they thought that the Muslims were in large numbers. This took away their courage.

Both these examples show that Prophet (pbuh) was open to new ideas and was willing to try them out.

So some important rules of Lateral thinking are:

- Do not judge the ideas
- Think how they can be put to use

And a very helpful tip is to breakdown the problem into small steps. This is called

“Fractionization”. Fractionization helps when you want to identify where the problem is. Let’s take the problem of “reaching school on time” and break it in small steps.

- Waking up time
- Time taken to get dressed
- Mode of transport
- Route
- Traffic
- Number of traffic lights on the way

When you have prepared your list then you can see where the problem is. Is the problem with your car, and that’s why you are unable to reach school on time? Or is it that you are waking up late?

Alhumdulillah, with this we have covered up the techniques of Lateral thinking.

And as we have seen, Lateral Thinking is used to help us perceive and describe things differently. It is a useful tool for problem solving and designing. It encourages one to question set patterns and accepted norms in order to come up with more effective solutions.

One example is that of the Battle of Trench. In this battle the Arabs on the suggestion of Salman Farsi dug up trenches around the city of Madinah in order to protect themselves. This was a new idea for the Arabs and they had never seen or done something like this before but the novelty of the idea gave them an edge over their enemy.

Hence we can say that now that our world is changing and technology is getting more and more advanced so it is time to rethink the way we are functioning. We need to learn to question and analyse and use our observation skills to find creative solutions within the boundaries of our *deen*. We need to have faith that Islam is the religion that has been chosen by Allah as the best *deen* for all times so if we are finding it difficult to practice then maybe the reason is that we are not coming up with creative solutions for practicing it.

(Du’a for end of a gathering) *SubhanaRabbikaRabbullzzati ‘ammayasifunwasalamun ‘alalmursaleen, walhamdulillahiRabbil ‘alameen*

(Parting salutation to students) *AssalamalaikumwarahmatullahiwaBarakatuh*

Reference:

LATERAL THINKING, **Creativity step by step** By *Edward de Bono*