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## **KMM 2015, SESSION 2: I KNOW HOW TO SOLVE!**

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### **SESSION PLAN**

PART 1 - ENERGISER - STATUES	(4 minutes)
PART 2 - ACTIVITY - THE 'E' GAME	(3 minutes)
PART 3 - SHAYARI	(2 minutes)
PART 4 - DESIGN THINKING	(22 minutes)
PART 5 - BALLERINA STORY	(3 minutes)
PART 6 - HOME WORK	(2 minutes)
PART 7 - BRAIN TATTOOS	(4 minutes) (4 minutes)

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### **PART 1 - ENERGISER - STATUES (3 minutes)**

Ask the group to move around the room, loosely swinging their arms while gently relaxing their heads and necks. After a short while, shout out a word. The group must form themselves into statues that describe the word. For example, the facilitator shouts "peace". All the participants have to instantly adopt, without talking, poses that show what 'peace' means to them. Repeat the exercise several times with different words (e.g. courage, masti, wonder, war, I CAN!)

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### **PART 2 - THE 'E' GAME**

Write a large, curvy letter 'E' on a piece of chart paper and show it to the students. Ask participants to describe exactly what they see on the piece of paper, from where they are standing/sitting. Turn the paper by 90 degrees and ask them once again what they see. Repeat this 3 more times, each time asking them what they see. They will see an 'm', a 'w', a '3' or an 'E', depending on the way we are holding the paper. This is a useful activity to highlight the fact that people see things very differently.

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## PART 3 - SHAYARI

“Flowers fall even though we love them;

Weeds grow even though we dislike them.”

Situations in life are some times complicated, and some of them could not have been anticipated.

E.g.

1. I go to a friends home to surprise and wish him for his birthday, but he is not home when I get there.
2. I bought a gift for a friend with a lot of effort, but when I gave it to him I found that he already has the same thing.
3. Went to play but broke my writing hand, and next day exams start.
4. I reach the exam hall and I discover it is the wrong time.
5. The friend who copied from me got more marks.
6. Somebody was asking me the answer to a question during the exam. I was ignoring him. Just as I turned to say 'I am not going to tell you', the teacher caught me and accused me of cheating.

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## PART 4 - Design Thinking

One of the most exciting models of solving complicated situations is “Design thinking.” It combines hands on learning (tinkering) with independent problem solving methodologies. This concept is basically the same as the problem solving-based creative process taught in many design disciplines, like architecture, engineering, and game design. The steps of design thinking can be characterised as follows:

1. Identify the issue and research to understand the issue better. Before you start finding the solution, understand the issue.
  - 1.1.Refer back to the activity in the beginning of the session (letter ‘E’, ‘m’, ‘w’, or ‘3’?). There are many ways to look at an issue.
  - 1.2.Father is on the phone all the time. The way the father looks at it and the way the child looks at it are different.
  - 1.3.Mother is upset about my choice of friends. Child thinks she does not understand me.
  - 1.4.Old man gets disturbed by kids playing outside.
  - 1.5.Dreams and Fears Exercise. (write 3)

2. Brainstorm possible strategies and identify solutions.
  - 2.1. Mahatma Gandhi and the riots after independence.
  - 2.2. Cricket with cycle tube ball.
  - 2.3. Russian space scientists - Pencil instead of Pen.
  - 2.4. Provide an issue (e.g. Corruption).
  - 2.5. Tendulkar and his wet clothes.
3. Test these solutions (welcoming failure as a learning tool).
  - 3.1. A friend of mine shared this incident with me. His eight-year old daughter was struggling away at a jigsaw puzzle. She kept at it for hours but could not succeed. Finally, it went beyond her bedtime. My friend told her "Look, why don't you just give up? I don't think you will complete it tonight. Look at it another day." The girl looked up. There was a strange look in her eyes. "But, dad, why should I give up? All the pieces are there! I just have to put them together!".
  - 3.2. Edison and the light bulb.
  - 3.3. The first phone made by Alexander Graham Bell could transmit voice only one-way!
  - 3.4. The first car made by Ford did not have a reverse gear!
4. Apply what you learn to evolve better solutions
  - 4.1. The cell phones / computers that we have today.

### Exercise to be done in the class:

Why do some people have more friends than others?

### Note for speakers:

When students practice design-thinking projects in the classroom, they not only master the concepts within the project, they exercise their skills of collaborating with teammates, investigating their topic thoroughly, using empathy to generate ideas for solutions, prototyping, and testing. Most importantly, they learn that failure is not a setback.

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## **PART 5 - BALLERINA STORY**

Share the story of the little girl who wanted to be a ballerina. The real shortage we face is of dreams, and the wherewithal and the will to make them come true.

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## **PART 6 - HOME WORK**

Home work - Go and meet someone who inspires you. You will need to use design thinking to figure how to reach them. E.g. Meeting with APJ, the principal of your school, someone you have heard of who is 'self-made'.

Ask the students to write down what inspires them about the person they met on a sheet of paper, and take their autograph. Ask them to bring the sheets back to the class with them in the next session of KMM (so that you can take a photo of the same and share it on the KMM page in Facebook). Where possible ask the students to click a selfie with that person and send it to you by Whats App or email.

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## **PART 7 - BRAIN TATTOOS**

Ask the class to share their brain tattoos. Make them write at least one thing that they have learnt out of the session.

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