

Making Math Come Alive by Shailesh Shirali, Rishi Valley School.

Shailesh Shirali started with the objective of making independent workers out of our children. For this, he brought the concept of investigation in a new light for the session. He started with 'School teaching lays far too little emphasis on the independent worker. In the context of mathematics, this means little or no experience to open ended exploration. In the process, a valuable opportunity for nurturing creativity is lost.'

He went on to define investigation by saying that, 'an investigation involves exploration and pursuit of a question. The chief value of an investigation may lie in the fact that one learns how to pose one's own question and how to organize facts.'

He threw a question at all the participants

- 1) Some integers can be expressed as the difference of two squares. Some integers cannot be expressed.

After this, every participant was given 10 min to investigate the concept individually. After which, the investigation was done together.

Mr. Shailesh then provided us with the methodology to go about an investigation.

- a) Pose the question on the card in clear, simple language.
- b) Make the write up brief and attractive. It must invite the student to examine the question.
- c) Include a well chosen diagram to add clarity to the write up.
- d) Ensure that the student keeps a record of the finding he/she has made.
- e) Keep the investigation such that it keeps the student intrigued for hours, days, weeks.

And at the end of the day, one must be able to understand and correlate to the existing knowledge.

He then left us with another question to investigate.

- 2) If we are allowed to make 10 straight cuts through a pizza, how many pieces can we get? (The pieces do not have to be of same sizes)