

Education as Thought Leadership

Thought Leadership

Thought Leaders are go-to-people, authority figures and opinion makers in a domain/industry. Several companies had started looking at Thought Leadership as a brand tool to position themselves ahead of their competition. They have prominent researchers on their rolls, to educate the industry with deep perspective, future trends and new ways to look at problems. Why would companies be interested in educating the industry? Why would Nestle be interested in educating people about Nutrition? Would we not be interested in purchasing products from a go to person? Marketing as a subject offers a deep perspective about Thought Leadership, due to a rich history of usage of Thought Leadership.

Deep-Tech and Automation

Mechanical, mundane and menial jobs are being automated. These are jobs which humans shouldn't be doing in the first place. Would it be worth a human's time if machines can do it comfortably? If basic survival is guaranteed, if food security is assured, would human race focus more on deep-thought? In the post-work world, there may be a lot of career opportunities for those who can think of new technology models or sustainable business models over technology models. So would deep-thought still be a nice to have or would it be necessary? Should we then change the way we look at education? Can basic information transfer suffice? Should kids be able to read and lead the world with new ideas? Should we then look at Education as the process of creating thought leaders?

Pedagogy for Thought Leadership

If kids are blessed with lateral thinking, should we restrict perspectives or can we leverage their intellectual faculties to bring in depth- critical and creative perspectives. Can we rise above the domain to see something profound? Can we rise above "place values" to see exponential hierarchy of quantities so we pack ideas/items in a space efficient manner? Can we rise above "tenses" to see temporal aspect of information and how humans have evolved a concept of time? If teaching is done this way, would we see the kind of depth which we see in workshops for CEOs? Are we then educating kids with deep content which enables them to see strategies and philosophies? Are we then nurturing thought leaders?

How do we do it?

Can teachers, subject matter experts and school leaders look up George Polya (Mathematician), John Searle (Philosopher of Language), Richard Feynman (Scientist) and other thought leaders who have shown the aesthetics of disciplines? Can we expose ourselves to deep thinking from various domains? Can we read stories of thought leaders to experience thought leadership and then change our idea of education? Can we re-examine our choice of content, books, role-models and movies?

Sample Content

Linear Equations

Why linear equations? Let's see the story of Veerappan and Murugappan. Linear Equations nurture logical thinking, especially deductive reasoning which Sherlock is known for.

You're the Police Commissioner and you're on a mission, you're trying to find Veerappan, you know that's impossible. Your intelligence team tells you that there is another person called Murugappan who has similar preferences as Veerappan, eats same food, hangouts in same places, but they're not friends.

Would you catch Murugappan? But what do you gain? Would you follow him? Would you try to identify his hangout spots? Would Veerappan come at the same time? Would you leave one cop at every hangout spot? Would you then be able to get hold of Veerappan? Would this work for sure? Heuristic?

Likewise, if $X + 5 = 10$, that is unknown dabba with some chocolates and 5 loose chocolates balance 10 chocolates on a weighing balance. Can we remove 5 chocolates on either side and claim that the unknown dabba (dabba by itself has almost zero weight) has five chocolates as it almost balances 5 chocolates? Is the unknown dabba like Veerappan, is the right pane of the balance like Murugappan

Wait for Sciensation Textbooks, world's first textbooks to introduce Philosophy of Mathematics and Philosophy of Language, so all students can easily understand the deeper purpose of learning!

Synonyms

Do synonyms have the same meaning? Or do they have similar meaning? What is similar meaning? We had this Socratic discussion to explore the idea of "similar". Look at the wall, show me different kinds of green I asked. The kids counted up to 14 variations. I asked are they different, they said yes, I asked why would you call them green then? They said it is almost same.

I then conducted a running race and the kids said the timing was almost same. I got hold of one kid so he couldn't complete the race, I asked if the timing was almost the same? I asked the kids to touch a wall after a count of three, I asked if the timing is same or almost the same?

We then discussed if twins are same or almost same? The idea of similar can be constructed in the child's mind through extrapolation of different experiences. This particularly helps those kids who don't get much help at home. Is hope our strategy or do we nudge kids to get concepts?

Secondly, if synonyms have same meaning why learn both of them? Do they have actually have same meaning? Well, Sciensation textbooks are exploring the historical and philosophical perspectives of synonyms and how two words with "same" would still end up with "different meaning" due to cultural context and this could be investigated by going back to the origin of the word. Language can be fun and meaningful if taught with philosophy, minus the rules, with Why questions topping up the discussions!

Socratic Dialogue Questionnaires

BizTechModelDesignDialogue(Ekalavya'18)

www.sciensation.tv/pdf/BizTechModelDesignDialogue.pdf

Sciensation'17

www.sciensation.tv/pdf/Sciensation17Questionnaire.pdf

Hack your MVP

www.sciensation.tv/pdf/HackYourMVPQuestionnaire.pdf

Construe the Constitution

<http://www.sciensation.tv/pdf/ConstrueTheConstitution2018.pdf>

Remembering Steve

www.sciensation.tv/pdf/RememberingSteveJobs.pdf

Literature Socratic Dialogue

www.sciensation.tv/pdf/LiteratureSocraticDialogueQuestionnaire.pdf

Ramanujan Mathematics Dialogue

www.sciensation.tv/pdf/RamanujanMathDialogueQuestionnaire.pdf

Extrapolate | Future of Education | Student Research Conference

www.sciensation.tv/pdf/Extrapolate.pdf

Aarohan | Hyperloop | BITS Pilani

www.sciensation.tv/pdf/AarohanSocraticDialogue.pdf

Idea of India

www.sciensation.tv/pdf/IdeaOfIndia2017Questionnaire.pdf

Ethics and Social Justice

www.sciensation.tv/pdf/EthicsAndSocialJusticeQuestionnaire.pdf

Books by Sciensation

Are you a Teacher: www.sciensation.tv/pdf/AreYouATeacher.pdf

Philosophy of Science: www.sciensation.tv/pdf/Ekalavya2016ResearchBook.pdf

Learning by Questioning: <http://www.sciensation.tv/pdf/LbyQ.pdf>

Philosophy of Education/ Biz-Tech Articles

- 1- <http://confluence.ias.ac.in/war-against-automation/>
- 2- <https://www.linkedin.com/pulse/creative-competitive-mathematics-tarun-sciensation/>
- 3- <https://www.linkedin.com/pulse/why-study-utilitarian-aesthetic-perspectives-tarun-sciensation/>
- 4- <https://www.linkedin.com/pulse/inquiry-based-history-education-tarun-sciensation/>
- 5- <https://www.linkedin.com/pulse/formal-vs-empirical-sciences-educators-perspective-tarun-sciensation/>

Sciensation Profile

Sciensation System of Learning

Humans have a history of more than 2000 years of deep thought. Few ways of thinking seem to be more effective than others. What is the right way to think? Can thinking be the byproduct of a certain kind of education? If one analyzes Socrates, Chanakya, MIT, Harvard, IISER, then the answer must be yes! But are these great thinkers working in silos? What if we can expose school students to these ideas and help them meditate through the thoughts of these geniuses? That's how we decode and unleash genius!

Sciensation promotes deep-thought, philosophy and research culture amongst educational institutions. Several scientists, bureaucrats, politicians and industry professionals have been judging Sciensation competitions. Socratic Dialogues expose participants to breadth and depth of topics with both perspectives and critical thinking coming in real-time, demanding spontaneity and quick-wit!

Areas of Work

- 1- Education Policy Research
- 2- Teachers Development Programmes
- 3- Socratic Dialogue Competitions
- 4- AfterSchool Classes
- 5- Television Productions and Talkshows

Values

- 1- Rigor- testing the argument very critically and creatively
- 2- Robustness- theory withstanding diverse situations
- 3- Elegance- beauty of the idea/solution
- 4- First Principles- reasoning from the definitions, rather than taking it on faith
- 5- Eloquence- arguing carefully and convincing the intellectual in the audience

Modules

- 1- Slow Maths: students learn mathematics with proofs and discussions
- 2- Science Experiments and Research: students design own experiments to test claims
- 3- Young CEOs Camp: Business Strategy, Technology Strategy and Design Thinking
- 4- Language and Aesthetics: Philosophy of Language, internal aspects of communication
- 5- Learning by Questioning: 4 systems, 30 different types of questions

Legacy

- Sciensation's work has been applauded by researchers from institutions like IISER Pune, IIIT Hyd, TISS Hyd and several reputed school principals
- Indian Academy of Sciences Confluence published- "War against Automation"
- IIIT Hyderabad STEP Programme had Sciensation as a knowledge partner. A Socratic Dialogue on Philosophy of Mathematics was organized
- 4th /5th graders of The Shriram Universal school presented Evolutionary Design Thinking projects to industry professionals and researchers from Univ of Hyd and IIIT Hyd after Sciensation's weeklong programme for the students.
- Sciensation had got 4th/5th graders to develop Evolutionary Design Thinking projects- <https://www.youtube.com/playlist?list=PLN7P0nYT1HeMR1RoMDIMf5G9Lwu17nRcu>
- 6th graders had engaged in an interesting Dialogue on AI, at Ramanujan Mathematics Dialogue
- Sciensation had mentored students of 40 schools, to present Design Thinking projects on "Future of Education" at Central Book Shop Extrapolate

Socratic Dialogue Questionnaires

BizTechModelDesignDialogue(Ekalavya'18): www.sciensation.tv/pdf/BizTechModelDesignDialogue.pdf

Sciensation'17: www.sciensation.tv/pdf/Sciensation17Questionnaire.pdf

Hack your MVP: www.sciensation.tv/pdf/HackYourMVPQuestionnaire.pdf

Construe the Constitution: <http://www.sciensation.tv/pdf/ConstrueTheConstitution2018.pdf>

Concept Discovery Sheets

www.sciensation.tv/pdf/Class9DivisionOfPolynomials.pdf

www.sciensation.tv/pdf/Class11TrigonometricFunctions.pdf

<http://www.sciensation.tv/pdf/Class6IntroductionAlgebra.pdf>

<http://www.sciensation.tv/pdf/Class7Exponents.pdf>

Articles on Education

<https://www.linkedin.com/pulse/hilberts-dream-can-ai-replace-math-teachers-tarun-sciensation/>

<https://www.linkedin.com/pulse/scaling-education-thinking-beyond-moocs-tarun-sciensation/>

<https://www.linkedin.com/pulse/war-against-automation-tarun-sciensation/>

<https://www.linkedin.com/pulse/iitjee-enigma-tarun-sciensation/>

Television Productions

Extrapolate, Future of Education: <https://www.youtube.com/watch?v=5fgCyOG4PLk>

Children's Day Talk Show: <https://www.youtube.com/watch?v=FWR5InR8h40>

Sciensation'16: https://www.youtube.com/watch?v=pFL_iT8-UZA&list=PLN7P0nYT1HeOZ4Z-y4hm1QPzFPto9eWk-

Previous Sciensation Socratic Dialogue judges

- 1- Mr JayeshRanjan IAS, Principal Secretary, Govt of TS (Hack your MVP, March 21st 2017)
- 2- Mr Sujiv Nair, CEO, TASK (GitanjaliRevisioning, July 20th 2016)
- 3- Mr JavagalSrinath, former Indian fast bowler (Extrapolate- Future of Education Nov 5th 2016)
- 4- Mr NageshKukunoor, Film-Maker (Idea of India Sciensation, Aug 15th 2016)
- 5- Dr Ramanjaneyulu G.V., Executive Director, CSA (Ekalavya, June 7th, 2015)
- 6- Dr RiteshKhunyakari, Asst Professor, TISS-Hyd (Pedagogy-Sciensation, Sep 4th 2016)
- 7- Mr Sriram Karri, Author, Novelist and Columnist (Ethics & Social Justice, April 14th 2017)
- 8- Prof. Susie Tharu, former Professor EFLU Hyd (Literature Socratic Dialogue 2018)
- 9- Mr Vijay Vedantam, Joint Secretary, Hyderabad Management Association (BizTech dialogue 2018)
- 10- Dr Soma Paul, Associate Professor, IIIT Hyd (Pedagogy Sciensation 2018)
- 11- Prof Ramachandra Reddy, Vice Chancellor, Yogi Vemana University (Darwin Day Dialogue)

Collaborations

- 1- Sciensation organized Literature Socratic Dialogue and Construe the Constitution during the Hyderabad Literary Festival 2018
- 2- Philosophy of Mathematics Dialogue was organized during the STEP programme of IIIT Hyderabad.
- 3- Hyperloop Dialogue was organized during Aarohan of BITS Pilani
- 4- Hack your MVP Dialogue was organized during IDeep, JNTU Kukatpally
- 5- Sciensation had partnered with CodeChef and IARCS to create awareness about IOI (world's second largest Olympiad, to nurture programming and informatics talent, patronized by UNESCO)

Sciensation Inter-school competitions

- Sciensation'11: E&L School, Nallakunta
Sciensation'12: Bhavans SRKV, Sainikpuri
Sciensation'13: Little Flower High School, Abids
Sciensation'14: Bolton School, Sec'bad
Sciensation'15 Sr: Manthan International School, Tellapur
Ekalavya'15: Gitanjali, Begumpet
Sciensation'15 Jr: Bhavans ARRS, Jubilee Hills
Ekalavya'16: DAV, Safilguda
Idea of India'16: Meridian School, Banjara Hills
Pedagogy'16: Meridian School, Madhapur
Sciensation'16: Little Flower High School, Uppal
ConstrueTheConstitution'17: Sentia Global School, Bachupally
Sciensation'17: Sister Niveditha School, Ameerpet
Construe the Constitution'18: Vikas Concept School, Bachupally
Literature Socratic Dialogue'18: GitanjaliDevashray, Secunderabad

Founder's Profile

Tarun, an IISER Pune alumnus, is a Mathematician by training, who started teaching at 16 and founded Sciensation.tv at 19, to spreading university level research based teaching at school level. Tarun had worked with Dr Vijay Bhatkar (Padma Bhushan awardee, team leader, PARAM supercomputer) and Prof.R.Ramanujam (Professor, IMSc Chennai) during course at IISER, besides research projects at IIT Hyd and IMSc. His Masters Thesis was on Game Theory & Theoretical Computer Science. Tarun has experience in Mass media production, blogging, video editing, graphic design, event management, marketing, recruitment which he leverages for interdisciplinary discussions.

Achievements

- TEDx speaker, "How my passion for teaching made me turn down IIT/IIM"
www.youtube.com/watch?v=5EV8QY-UP58
- One of the youngest teacher trainers in Hyderabad, started at 25
- KVPY Fellow (2009-2014) and IAS Summer Research Fellow (2010)
- 2nd position, Madhava Mathematics Competition, organized by NBHM, Govt of India and TIFR, 2010
- 5th position, AP Mathematics Olympiad 2006

Expertise

- **Design Thinking Coach**-Tarun combines his entrepreneurial experience and science background to teach user centric problem solving through scientific diagnosis/prototyping.
- **Dialogue/Debate Coach**- how can we be open to perspectives, how do we critically evaluate perspectives? Tarun had moderated several Socratic Dialogues from 2011-present
- **Pedagogue/Teacher Trainer**-Tarun has been working on scaling the MIT/Harvard/IISER approach to learning, by nurturing the intellectual capabilities of students.
- **Mathematics Anxiety**- How do we relax math anxiety? How can we get students to appreciate abstract mathematical concepts through better examples and better questions?
- **Career Coach**- How are the future careers going to change? What are the courses/universities which you are not aware of? Tarun had rejected an admit at IIT/IIM and has a network of well wishers across different parts of the world, which he leverages to guide parents/students.

Topics

Tarun had spoken at various platforms, addressing students, working professionals around diverse topics like Indian Philosophy, Entrepreneurship, Game Theory, Business Strategy and Mathematics. He had also delivered guest sessions at schools/colleges on how the abstract topics in the curriculum could be extrapolated to diverse situations. Tarun is a rare speaker who doesn't believe in the "beyond the curriculum, within the curriculum" divide, he can effortlessly switch between both.