

Literature Socratic Dialogue Questionnaire

General Instructions

- Students can send in their research write-ups in teams of three
- There are two parts- Analysis and Synthesis
- The Analysis part gives the required subject background.
- Students would have to submit both Synthesis themes, would present only one in the competition, the team which secures more points in analysis round gets the first preference to pick a particular Synthesis theme.
- The team which would have submitted the best research shall present during the event.
- Describe the background work which was done to complete the research report.
- Interesting wrong answers are valued more than correct answers, at Sciensation!
- If you disagree with any implicit assumptions in the question, please state your point of view explicitly. You'd receive extra marks.
- Sciensation is very generous when it comes to awarding points, creative answers receive extra-marks!

Selection Criterion

- Examples- Can the student provide intuitive examples to justify the logic?
- Eloquence- Were the arguments explained carefully?
- Rigor- The arguments/assertions need to be justified.
- Robustness- Can the argument break down easily? How general is it?
- Elegance- Were the arguments beautifully constructed?

Scoreboard

	Examples	Eloquence	Rigor	Robustness	Elegance
Analysis: P1	/5	/5	/5	/5	/5
Analysis: P2	/5	/5	/5	/5	/5
Analysis: P3	/5	/5	/5	/5	/5

	Examples	Eloquence	Rigor	Robustness	Elegance
First Theme	/5	/5	/5	/5	/5
Second Theme	/5	/5	/5	/5	/5

Total (Analysis + Synthesis):

A1: What is Language

Q1. What is language? Is language the only enabler for communication? What is the difference between sign-language and human-language? Why don't other animals have cognition (mental action/process of acquiring getting knowledge through thought, experience and senses)? Is cognition a prerequisite for development of languages? What kind of cognitive abilities would a dog require to develop a language?

Q2. A child on being shown different trees with different shapes/sizes, say a banana, a mango or a coconut, would be able to recognize a fourth different one, to be a tree even if he/she didn't see it before (say an Ashoka tree). How? How is he/she able to recognize the common properties of all trees? So is a tree a physical object or an abstract object? However, when a child is shown a cat, he/she may think that anything with four legs is a cat and may scream "cat" on seeing a dog. On being told that it is a cat, the child may then realize that anything which "meows" is a cat and which "bows" is a dog. Is the child trying to find patterns or abstract out information here? Why do lots of kids love pattern finding exercises? Is abstraction an important prerequisite for language and is it inborn?

Q3. Noam Chomsky, father of modern linguistics, says that most kids can pick up rules of grammar on their own, with a little help. For instance, on being taught twenty, thirty, fifty, they guess sixty by observing a pattern (they spell forty incorrectly). If a child is shown past tense forms of words, he/she extrapolates and extends the pattern. If a kid is told "the prince sat on a colorful zebra and flew to Mars", he/she may be able to comprehend it even though he/she may have never heard this sentence? Most babies learn about 500 words in just two years? How do kids learn about 10 words per day, faster than most college students specializing in Language studies? Do we have a biological explanation for this? Do baby have an organ which helps them in acquiring language?

Q4. If we have an organ for acquiring language, why do so many languages exist? How is a child able to learn any language (5000-7000 languages), so quickly? Do all languages have a few rules in common, a universal grammar? A study found that early babbling sounds of babies are similar, irrespective of their parents' language? How are babies able to differentiate between sounds of languages, better than adults? How do babies use the universal grammar, in their brain, to pick up languages rules? Is language completely innate? Should language be taught if it is learnt biologically? How does exposure help?

Q5. How is language connected to meaning? What is an apple? Would a half-cut apple be considered an apple? How about a rotten one? What if it doesn't smell like an apple (after injecting something)? What if it doesn't look like an apple (paint it with a color)? What is the definition of meaning? What is the meaning of definition? Can language help us question a lot of things which we take for granted?

QFD: How would you define Language if you have to convey as many properties as possible?

A2: What is Literature?

Q1. How do we distinguish between literature and any other utterance? Do we have an epistemological difference? Does literature engage in mystification? Does literature have an obligation of dealing with reality? Is any piece of fiction literature? What is the difference between literature and a classic? Can metaphorical extensions of Literature help in understanding what is Literature, for instance, “Literature Review” is a part of research, brand-marketeers talk of product literature and doctors look for literature as well? Why use “literature” and not “brochure”? Is it easy to define Literature, so what do we do?

Q2. Is literature caused by language? Is literature caused by psychological forces? Is literature caused by socio-historical forces? How would you differentiate the writings of a court poet, with that of a reformist poet? Can the literature of a region help in understanding its social conditions? Why did Vijayanagaram district (of Andhra Pradesh) produce a lot of literature? Why did independent struggle produce so many poems? Does social unrest trigger poets? Few Mathematicians and Sportspersons do write beautiful poems, what do you think motivates them? What can analysis of religious literature reveal, what do most religious texts have in common? While analyzing literature, is it important to ask who is the author or who is the reader? Do we relate to a literary work through the author or reader?

Q3. Many great philosophers were not great writers. Socrates called all poets as liars, Plato in his book “Republic” states that all “poets should be banished” and Aristotle suggested that poets are not liars, but they don’t deal with reality. Does Philosophers clash with Literature? Is this a speculative-skeptic conflict? Iris Murdoch says that Philosophy tries to clarify, while Literature tries to mystify. We’ve been hearing arguments against historical films, what is your view about “creative liberties” of an author?

Q4. What are literary strategies and devices? What is the difference between strategy(say blitzkrieg) and tactics, in a sport or war? The Animal Farm by George Orwell is an example of Allegory. He writes – “All animals are equal but a few are more equal than others” while talking of human greed and corruption. Why are these literary devices used? Language teachers believe that their story flow is interrupted by literary devices as they’d have to explain the device and to get students to understand the story. Would a classic/literature be expected to have more such interruptions, in comparison to a normal utterance?

Q5. Why does Literature have the power to transform a person? In what sense can it transform? How can Literature transform a person if it doesn’t deal with reality? Prof Moya of Stanford says that Literature can give insight into other people’s minds, by giving us access to experiences which we otherwise don’t. Can you think of the Moral, Social/Political, Linguistic, Ideological, Cultural, Historical, Educational, Entertainment functions of Literature? How would you interpret “power of words”?

QFD: How would you define Literature, if you’d like to get your classmates to pursue it?

A3: Aesthetics

Q1. Are some poems more beautiful than the others? Are some paintings more beautiful than the others? How do we judge them? Or rather why do we judge them? Do we get a pleasure by judging a piece of art? What is beauty? What is elegance? Why do we say that Sachin or Federer were elegant? Why do great teacher try and show the beauty of a great person or a great piece of art?

Q2. Does one require an understanding of art to judge an art? Does one need an understanding of literature to critique a poem or a drama? Can we define a subject for this purpose? Philosopher Denis Dutton classified “six universal signatures” in human aesthetics- Expertise, Non-utilitarian pleasure, Style, Criticism, Imitation(Simulating the world), and Special Focus(dramatic focus of experience).How would you come up with your own version of Aesthetics?

Q3. Why should we study stories? How can stories or poems help the reader in seeing patterns or ideas which are otherwise appear deep and inexpressible? Evolutionary biology seems to suggest that people believe in stories (Animal Spirits). Marketeers seem to be interested in story telling as well. But then are all stories equal? Are some stories more “useful” or “beautiful” than the others?

Q4. Educational psychologist and Philosopher, John Dewey, suggests that the unity of aesthetics and ethics can be understood by our notions of “fair behavior”. Steve Jobs said “Design is not the way it looks, it is the way it works”. Evolutionary biology suggests that emotions came up to help us resolve evolutionary recurring situations. For instance, we experience disgust when we see poisonous berries or anything harmful. Do these dots connect? Can we have functional perspectives of aesthetics, in the light of evolutionary neuropsychology?

Q5. Why should we learn or listen to music? Why should we study literature? Can we classify answers to questions of this form into utilitarian perspectives and aesthetic perspectives? Why are Mathematicians concerned about elegance or beauty of proofs and solutions? Why are programmers also concerned about how pleasing a code is? Why is an editor(a.k.a. grammar Nazis) frustrated on seeing certain types of sentences? Does this sense of aesthetics involve functional benefits? Is this aesthetics in the conventional sense or are we talking of a metaphorical extension of aesthetics? Professionals complain about abuse of jargon- that the same word is used for conveying different things, but does that help in appreciating subtlety? Can literature help in seeing lateral connections amongst disciplines? Can literature help one in evolving a functional sense of aesthetics? Well, why study literature?

QFD: What is the connection between Literature and Aesthetics?

S1: Aesthetics of Coding

Q1. There are notions of “hacker” way of life, maybe problem solving, of problem solving within time deadlines. There are “lean” notions in product development- to make a small version of a product, test it in the market and then evolve more versions of the product, rather than develop one version after a long period of time. We talk of culture of an organization and style of coding being influenced by the culture, how do you think “Programming Literature” can evolve such a culture?

Q2. What is a pretty code? What is a beautiful cover drive(in cricket)? What are the parallels between a good drive and a good code? How many different parameters does one have to take care while playing a cover drive? Foot movement? Face of the bat? Timing? Back-lift of the bat? Bat speed? Can one have a recipe or process to get the stroke right? Is batting an art or a science? How does a sense of aesthetics help one in developing an intuition of what’s good and what’s not? What happens when you see a batsman with unconventional technique like that of Dhoni? Can intuition help in holistic evaluation of something? Do we have a process to evolve such intuition?

Q3. What are the functional requirements of programming and how can a sense of aesthetics help in achieving such optimization? Dave Xiang says that “No Overloading” (not using the same name for different things), “Good dependencies” (linear dependency in the program) and “Organization” (how code is constantly being organized) are the qualities of a good code. Do you think a sense of aesthetics can help in achieving these desirable qualities? Are form and function connected?

Q4. Design Thinking has a mantra- “iterate fast, make mistakes fast, evolve fast”. What do you understand by iteration? Is this a methodology or a mindset? Does one require a mindset of iterative improvement to evolve robust code? Does one have to be productively paranoid to be able to test it under various cases and more importantly to never be satisfied with the code? Does such a state of mind help one in writing code which works under different conditions? Would a sense of aesthetics be able to guide a product manager while evolving a robust product or code? Dave Xiang says that one can never come up with a nice way of organizing files, right at the beginning, as one is not a soothsayer to be able to predict the kinds of files which could come up later, so one needs to organize constantly? Does this suggestion also require a certain kind of mindset and a sense of aesthetics of organization?

Q5. Why is beautiful code easy to understand? A film director Krish Jagarlamudi had said that a good script helped him in completing his movie quickly as the script motivated his team to work faster, as they couldn’t wait to see the script on the silver screen? Can beautiful code energize the team during further development? Can you find and read one beautiful code and analyze it?

QFD: How can exposure to Literature help a computer software professional?

S2: Aesthetics of Decision Making

Q1. Operations Management is one of the four core functions of business. But then, many B-Schools in Hyderabad offer Marketing, HR and Finance but not Operations. There is less exposure to OM although most of the workforce of a company is involved in Operations. Goldratt wrote a series of novels about OM- "Goal", "Goal2", "Isn't it obvious" which shows how a protagonist solves a huge business problem using his understanding of operations management. Would such a piece of work motivate more people to study operations management? Would it be considered to be "Literature"? Would the focus be on creating interest or functionality? Do we even have such a tradeoff? Can Aesthetics blend both?

Q2. Is jargon useful in understanding real life problems? Why do marketers use the word positioning (that strategic positioning of troops gives you an advantage, likewise can we achieve strategic positioning of the product using the right words in the customer's mind? For instance, Volvo owns the word safety) and Toyota Production Systems seems to look at excess "inventory" as a "wastage". Are these jargons a prerequisite for deeper domain level discussions? Can domain specific literature help in getting acquainted with the jargon- do we see a difference in knowing and understanding? Does the dosa economics story(Raghuram Rajan) make you know or understand inflation?

Q3. We have various interesting theories which show the world through different perspectives. Prof. C.K.Prahalad talks of the concept of Democratization in the context of commerce, in his book "Fortune at the Bottom of the Pyramid"- he says that poor people should also get access to benefits of globalization- worldclass products at competitive prices. As we have seen in P3, Evolutionary Biology shows the world in a completely new perspective. An introduction to Game Theory helps in analyzing the actions and the overall outcomes. Game Theory transforms a persons' worldview quite radically. How can we get students to get exposed to these theories? Can we evolve new types of literature? What do you think of the new series of popular economics/neurobiology books which explain the neuro buy-ology? Sapiens?

Q4. Syntectics is a problem solving methodology that uses metaphor for stimulating thought process. Steve Jobs had used metaphors to evolve user friendly UI/UX. We used metaphors of "Desktop"- to organize files and folder. He used the metaphor of traffic lights for colors of close/restore/minimize buttons. How can we promote such metaphor based thinking? Can you think of such metaphors?

Q5. Decision Making involves various processes- how to look at a problem, how to categorize situations, how to look at relevant case studies, how to experiment, how to identify the required data etc. Can an idea from one context be used in other contexts? For instance Polya way of teaching Mathematics can be used to teach heuristics and problem solving. Can Literature be used as a tool for process education?

QFD: How would you use Literature to hone your personal decision making skills or maybe teach it?