



Inquiry and Integration in Education May-September 2017

Course Structure 1

The aims of IIE-2017 are spelt out in the document called *Course Outline*.

To achieve those aims, you need to have *the experience of inquiry in a wide range of domains beyond your comfort zone*, ranging from mathematics and physical sciences to biological sciences, human sciences, and philosophy.

Worried? Relax. We are committed to helping you glide smoothly beyond your comfort zone and enjoy the experience as well. It is important, however, for you to go beyond your own personal preferences and career needs, and meet us half way.

This document focuses on two segments of IIE: the LTs and the Face-to-Face meetings.

A. The Learning Triggers (LTs)

An LT in IIE is typically a package made up of readings, videos, and a set of questions to address. You are expected to actively engage with them — read/watch, think through, discuss in groups; and then post responses. Here's how it works:

1. We will mail you a new LT every alternate Saturday for the first 12 weeks, starting 19 May. Each LT will have 2 weeks devoted to it, starting on the Saturday when it is sent to you.

See *Course Calendar* for dates.

2. In your mail, around May 14, you will receive your **Unique Registration Number**: a 5-digit number. Please note it down. (And remember where you made that note!). You will need this number in order to submit your response to the LTs.
3. Since you receive a new LT on a Saturday, you have the weekend to start working on it. Please read and re-read the LT, think about its contents, and discuss your views with friends/colleagues/fellow-participants in IIE. You have over a week to work on it.

If you wish to benefit from the course, please don't leave the LT till the following weekend, just before your submission is due. Start working on it during the weekend when you get it.

4. You are required to send in your responses as a **word document**, by **8 pm, the following Sunday**. We will provide a link in each LT to help you easily upload the document.
5. Once all the submissions have come in, we will share everyone's responses with all the participants.
6. While we may not be able to respond individually to everyone's responses, we will pick up interesting views and important questions from all the participants' submissions and send out **a consolidated feedback to all of you**.
If you are keen to get a response for a particular question, feel free to raise it in the Face-to-Face meeting in your city. You could also raise it in the *Open Forum* and seek views from fellow-participants.
7. Once all the submissions have been shared with you, the *Learning Trigger Forum* is available for discussions on the particular LT and on participant responses.
8. We will follow this pattern till Week 13. Weeks 14-17 will be for clarifying and consolidating ideas that have arisen during the course.

Structure of an LT

An LT in IIE has two parts. Each part has some material to read, and sometimes, one or two short videos to watch.

Readings

The readings in **Part I** are designed to develop inquiry, critical thinking, and integration abilities. The difficulty level of these readings, and the knowledge background required to understand them, is such that a high school student would be able to handle the task with some effort.

Many of the readings in **Part II** address learners, as well as educators who may wish to incorporate the learning outcomes illustrated in Part I into syllabi, teaching-learning materials, classroom activities, and assessment. The readings aim at developing a feel for classroom activities oriented towards inquiry abilities. Even if you are a student and not an educator, or do not have any teaching experience, it might be useful to reflect on the issues raised.

Videos

These videos go parallel to the readings. Some are dialogues between ThinQ members, and supplement the readings in Part I, giving an understanding of inquiry. Others are edited recordings of actual Inquiry-Oriented class sessions, and serve as illustrations of classroom implementation of the learning outcomes.

What is expected of you (How to go about responding to the LTs)

For each LT, as early as possible after you receive it:

- **read** the assigned materials and
- **watch** the videos.

Based on your personal experience, whether as a learner or as an educator,

- **reflect** on their content. After such reflection, it would be useful to
- **re-read** the materials, and to
- **discuss** the readings and videos with colleagues, friends or fellow-participants.

Each LT will be accompanied by a set of guiding questions (roughly the same set for all LTs). When engaging with the readings and videos, these questions will help you to make your reflections and discussions more meaningful, and better structured. Please let your reflections, and the way you frame your answers, be guided by these questions. The questions are:

Part I

1. Does the reading provide a broad sense of what we mean by inquiry?
2. Are there parts that you think we need to clarify further?
3. Do you think students are currently exposed to any of these inquiry abilities?

Part II Page 2 of the Course Outline (*filename: 1 IIE-2017 Course Outline*) says that, for ‘high quality’ education, curricula need to go beyond (i) and (ii), to aim at (iii) – (vi):

- i) an understanding of the concepts and propositions of knowledge;
- ii) the ability to apply (i) to a range of familiar (and novel) problems and situations.
- iii) an understanding of the evidence and arguments for or against established knowledge as well as controversial concepts and propositions;
- iv) the ability to think critically about concepts and propositions;
- v) the ability to engage in independent inquiry; and
- vi) the capacity for an integrated perspective on (i)-(v).

The guiding questions for reflection and discussion of Part II are the following. The purpose of these questions is to develop a feel for activities oriented towards inquiry abilities, through reflecting on the questions

4. Of the *learning outcomes* in (i)-(vi), which ones is the teacher in this video aiming at?
5. What do you think are the specific mental abilities that the tasks in this video and reading aim to nurture?

6. If you are tempted to modify the learning outcomes, what would the modifications be?
7. Try to articulate what you found to be the positives and the negatives of the readings and the videos, such that we can improve them without losing what is valuable in them.

For each LT, you will be required to submit the *results of your reflection* in a doc file. The file should contain your Unique Registration Number and name, but not your email. The site for posting will be given in the individual LTs.

Please be assured that all of us in the learning community of IIE-2017 will benefit from your views, and the outcomes of your discussions with others.

B. Face-to-Face meetings at your location

We will try to facilitate monthly face-to-face meetings for participants in Pune, Delhi, Chennai, Bangalore, Mumbai, and Tucson, Arizona — the places from where we have a substantial number of people in the course. We will **try to** have at least one ThinQ Team member present in some of the meetings in each city, to facilitate the discussions, and to respond to queries.

If you are in a location other than the designated ones, but can travel to a city where the meetings are held, you are welcome to join. Please do keep us informed, preferably in advance, if you are attending such a meeting.

If you are willing to organize the meetings in your city (including those listed above), we would be most grateful. Please get in touch with us if you can volunteer to do the organizing. This would involve coordinating with other participants via email, finding an appropriate location, liaising with the facilitators, and so on.

You will hear more from us on the meetings after the course takes off.