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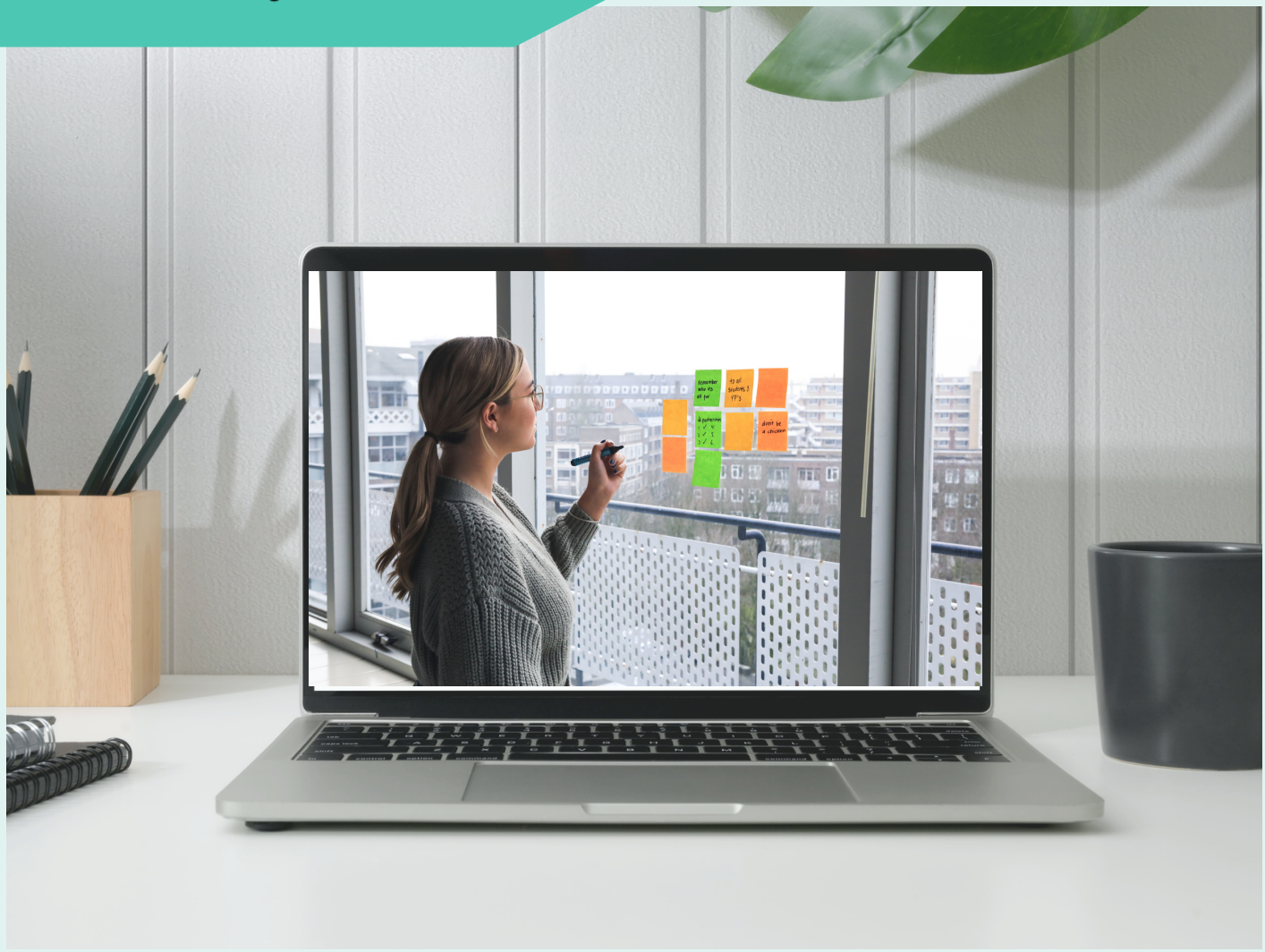

Pragmatic Thinking and Problem Solving

REGISTERED HRD CORP TRAINING PROVIDER

INDIGO

Course Objective

The objective of this course is to provide the participants the knowledge, ideas, and tools to apply pragmatic thinking and problem solving in different stages of their work, and in their daily life.

Targeted Group

- Adults who desire to improve and apply pragmatic thinking and problem-solving skills in their professional and personal life.

Pre-requisite

Exposure in intensive discussions and problem solving, including technical analysis, brainstorming, reviews sessions, or debates with peers or others. The exposure allows the learners to appreciate the idea and methods taught in this course that would have addressed the situations they faced in the past in a better manner.

Delivery Mode

PowerPoint presentation, activities, and Q&A

Training Aids

Laptop and Zoom (or equivalent) presentation mode for online session.
Projector for face-to-face session.

Learning Outcome

At the end of this 2-day course, participants will be able to:

Session 1 (Day 1)

1.Have a clear idea about pragmatic thinking
2.Explain the typical hinders in pragmatic thinking
3.Apply critical thinking for self or group in practical manner

Session 2 (Day 2)

1.Have a new perspective in viewing problems in life
2.Use a wisdom and new mindset in solving problem easily
Apply a set of new tools to solve problem effectively and efficiently

Course Schedule

Session 1

TIME	CONTENT / ACTIVITY	TRAINING METHOD	TRAINING RESOURCES
Session 1 - Pragmatic Thinking: Critical Thinking for Practical Application			
5 mins	**Opening** A question to lead learners to the topic	Q&A	PowerPoint slide 1, 3
10 mins	**Introduction** • Introduction to get to know each other • Share the benefits of applying the knowhow learnt from the session • Prepare the learners to engage actively • Introduce the learning outcome: Ready to practice pragmatic thinking	Q&A, lecture	PowerPoint slide 4-8
10 mins	**Icebreaker** Learners to relate their past heated discussion on how it got started and how they handled it	Group activity	PowerPoint slide 9
100 mins	**Key Learning 1:** **A simple definition and illustration with 4 simple pointers on critical thinking** A vague definition of critical thinking could be contested and does not help to make one know how to practice critical thinking. A simple 4-pointers definition emphasizing the objectives, the consideration, and the steps of thinking, turning critical thinking into pragmatic thinking, is introduced in this class. The 4 pointers lead the learners to apply a pragmatic thinking by starting it right, doing it right and ending it right, either by oneself or be with a group. Examples are given to make the pragmatic thinking concept easy to be remembered and be applied systematically. **Activity:** 1) Learners to search online the definition of critical thinking and illustrate their understanding. Learners will be enlighten into pragmatic thinking by understanding critical thinking in a new way. 2) Break class into groups and let the groups to apply the learning of the 4 pointers on some topics identified by the groups.	Lecture, Q&A and activities	PowerPoint slide 10-38
80 mins	**Key Learning 2:** **Be aware of the hinders in critical thinking.** Various hinders arisen during a discussion could make the discussion ineffective, misled and deviated from the desired outcome. Thinking of many tend to be self-centric and subjective, influenced by the past learning, experience, knowledge, and inevitably the person's character, habits, ego, emotion etc. Discussion in a group has the benefit of diverse opinions but it also poses a challenge of contested debate and irrational argument if the discussion and thinking are not done carefully and objectively. This section lets the learners to learn about these hinders and be more alert when they appear and be more ready to deal with them. System 1 and System 2 thinking types, aka the Fast Thinking and the Slow Thinking are introduced to learners to let them understand how hinders could surface indivertibly. Learners are trained to consciously use System 2 with an open mind for more thorough thinking. **Activity:** 1) A test of learner's open mind and their usual thinking type to allow learners to recognize room of improvement from their norm. 2) Learners to search online the definition of System 1 and System 2 thinking types and illustrate their understanding. 3) An experiential learning to trigger the learners to use System 2 and open mind to see things beyond the initial perception they may only have thought off with the System 1.	Lecture, Q&A and activities	Power Point slide 39-62

Session 1

230 mins	**Key Learning 3:** **Practical Approach to Apply Critical Thinking** A novel and simple ABC steps are introduced to get the learners to apply critical thinking. To initiate a good thinking alone or a group discussion session, everyone shall be prepared with a confined scope to guide the thinking and the discussion, avoiding waste of time and deviation from the desired outcome. Learners will learn how to initiate a good group discussion with minimal participants and clear roles defined. Learners will also learn the fundamentals of the logical and the reasoning thinking, with some structured methods and ideas to run a Question-and-Answer session wisely throughout the discussion to draw sound conclusions. Learners will learn 10 visual aids to construct good questions and answers for a complete thought. Activity: 1) Learners to relate and describe their usual focus and common difficulties in their past encounters. 2) Learners to exercise the skill of forming structured arguments with logical and reasoning thinking. 3) Learners discuss why, when and how one shall ask good questions. Learners will exercise all the 10 visual aids shared in the training. 4) Learners to learn the considerations and the decision-making tools in making sound conclusions. 5) Learners to recap the ABC steps	Lecture, Q&A and activities	Power Point slide 63-130
10 mins	**End the Session 1** 1) Summary: A recap of the training content. 2) Q&A: Allow learners to raise questions. 3) Review Learning Outcome: Check on learners their understanding of the topic 4) Closing: A quote from Albert Einstein	Lecture, Q&A, and assessment	Power Point slides 131-133

Session 2

Session 2 - Pragmatic Problem Solving: Problem Solving from Simple to Difficult			
5 mins	**Opening** Questions to lead learners to the topic	Q&A	PowerPoint slide 134-136
10 mins	**Introduction** • Share the benefits of applying the knowhow learnt from the session • Introduce the learning outcome: Ready to apply pragmatic problem solving	Q&A, lecture	PowerPoint slide 137-138
10 mins	**The Contents** • Introduce the contents to give the learners an overview • To align with the learners which specific topics of interest to focus on • Prepare the learners to engage actively	Lecture, Q&A	PowerPoint slide 139-143
130 mins	**Key Learning 1:** **The Wisdom In Problem Solving** People usually do not aware that problems exist more often in life and work than they recognize. Problems range from some most simplistic ones to the extremely difficult ones. How well one deals with the problem has a lot to do with their mindset, habit, and perceptions, as well as their conscious and unconscious response to the external elements. Most often people tend to see problems in the negative way and avoid facing the problems rather than embracing them as a steppingstone for a better life or career. A novel and simple concept of ART Actions that emphasizes on awareness, problem recognition, and 3 actions to close a problem, is introduced in this class. The concept leads the learners to apply a pragmatic problem-solving skill by starting it right, doing it right and ending it right, either by oneself or be with a group. Examples are given to make the pragmatic problem-solving concept easy to be remembered and be applied systematically. A quick-result-oriented approach is introduced to learners for simple problems. It illustrates how to define a problem clearly followed by prompt ideas generation and fast resolution. Hypothesis-driven resolution is introduced for more complex problems. Learners will learn how to form hypothesis more appropriately and use the What-When-How-Unknown approach to lead to more resolution options. **Activity:** 1) Learners to identify the conscious and the unconscious response everyone usually exhibit and some social and systems constraints that make problems more difficult. Learners are enlightened of them and be more alert to figure out what they could do differently. 2) Learners to research online some common problem-solving methods. Their finding allows them to appreciate the novelty and pragmatic problem-solving approach shared in this course. 3) Break class into groups and let the groups to practice the learning of the pragmatic problem-solving methods.	Lecture, Q&A and activities	PowerPoint slide 144-163
80 mins	**Key Learning 2:** **The Blind Spots in Problem Solving** Many are unaware the importance of other skills that are needed to complement their technical problem-solving skills. These are the blind spot making problem solving ineffective, inefficient, and off the course from achieving the desired outcome timely. Learners are enlightened to enhance their capability not limiting to the technical perspective but an all-rounder ability. Learners are also enlightened to solve problems by spending energy and resources just right considering the optimum outcome. This section reminds the learners to open their mind to embrace problems and solutions. **Activity:** 1) Learners to list a complete list of skills needed to be a good problem solver. Learners will score themselves and be aware which area they should improvise. 2) Another test of learner's open mind and allow learners to recognize room of improvement from their norm.	Lecture, Q&A and activities	Power Point slide 164-176
140 mins	**Key Learning 3:** **The Practical Tools In Problem Solving of Complex Problems** A few tools are introduced to get the learners to apply pragmatic problem solving. Learners should master some problem-solving tools to guide their problem-solving process, avoiding waste of time and deviation from the desired outcome. Comma Mindset, Dynamic Imagination and 40 TRIZ Inventive Principles will be shared to let the learners to keep an open mind and use some well guided thinking principles to identify solutions. Learners will also learn the Fundamentals Based Problem Solving (FBPS) method in brief to address the more complex problem. The 6 Fundamentals-Based Investigation approaches are shared to learners for more effective and efficient investigation to identify dominant factors and best improvement options. 5 FBPS validation methods are also shared to study the low DPM issues more effectively. Learners are enlightened to solve problem with a much faster pace with the Today Mindset. Learners will also learn a 5-Prong Strategy which is best used for more complex and higher impact issues, to arrive to a resolution with certainty unless it is a showstopper issue due to fundamental science limitation.	Lecture, Q&A and activities	Power Point slide 177-197

Session 2

	Activity: 1) Learners to research 40 TRIZ Inventive Principles and keep in mind to refer to them to generate more solution ideas. 2) Learners to research the typical problem-solving steps. This will allow the learners to appreciate a new problem-solving approach, a.k.a. Fundamentals Based Problem Solving (FBPS) better. 3) Learners to discuss their habit to solve problem by performing evaluation and validation, and the method they usually use. This will allow them to appreciate and remember the 6 Fundamentals Based Investigation approaches better. 4) Learners to exercise with a template to apply the Today Mindset approach. 5) Learners to describe the idea of being strategic and being tactical. This allows learners to appreciate and remember the 5-Prong Strategy		
60 mins	**Key Learning 4:** **Preventing Problems and Being Proactive** The best problem-solving concept is shared in this section. The best concept is make no room for error and hence there will be no problem to arise later that need resolution. The idea about control by preventive and proactive is shared. Mistakes are made clear to all learners that they are always detrimental, damaging, and harmful. Mistakes must be avoided by the 3 Rights approach. Technology robustness must be instilled upfront during development. A mathematical model to access the robustness or chances of failure is taught in this section so good solutions can be thought of ahead of time. Activity: 1) Learners to discuss the types of issues they usually face and how they usually deal with them. This will let the learners to appreciate the concept of excursion and chronic issues, which shall be dealt with in different ways. 2) Learners to think harder to recognize "mistakes" are never a good thing to happen. Learning from mistakes are needed but that does not make mistakes are good to be embraced. 3) Learners to discuss how to deal with mistakes and how to prevent them from happening.	Lecture, Q&A and activities	Power Point slide 198-206
10 mins	**End the Session 2** 1) Summary: A recap of the training content. 2) Q&A: Allow learners to raise questions. 3) Review Learning Outcome: Check on learners their understanding of the topic 4) Closing: A few quote from Sun Tzu	Lecture, Q&A, and assessment	Power Point slides 207-210

About Elite Indigo

Elite Indigo Consulting provides corporate training to the semiconductor and manufacturing industries. With a humble beginning of one founding member with passion and desire to share his 20 years of experiences in Smart Manufacturing for global manufacturing facilities, now, we have a strong and competent team of 20 members, all aligned with company mission, vision and core values.

Our Mission

"Transform Data into Insights - Leap Forward"

Our Vision

Be a Global Trusted Advisor in the Areas of Skills Development, Consultancy & Software Solutions specialising in Semiconductor & Manufacturing industries.

Our Core Values