

# Design Thinking for Business Innovation

## Lecture Notes Version 1.4

Thasvarit Kruerkalai

Last Updated: 2 September 2024

### Abstract

This is continuously updated lecture note for the Design Thinking for Business Innovation class by Kaweewut Temphuwapat at Chulalongkorn University. Each version might have new content, revisions, or added details. Please note that these notes are unofficial and contain my personal opinions. I created these notes because the lecturer asked us to update our learning on social media weekly.

## 1 Introduction to Design Thinking

Design Thinking is often viewed as a cool framework (which is becoming a bit outdated in 2024). The issue with frameworks is that people assume they can use them instantly because they're ready-made. In reality, Design Thinking is more like a skill that needs to be developed and refined over time to be truly effective. It is a cool buzzword for something as simple as 'understanding the customer'. Everyone knows we need to talk to customers to understand them. The problem is we also need to ask good, non-leading questions. If we don't, we'll get bad answers, leading to poor product development—garbage in, garbage out.

## 2 The Most Important Lesson

One key takeaway from this class, especially for fields like engineering and accounting, is that truly understanding the consumer is a complex task—so complex that lecturers often hire psychology experts to help. For instance, consider a child's toothbrush, which is designed larger than an adult's. You might think the reason is obvious, like "a child's hand isn't strong enough to grip a regular toothbrush." But that's an oversimplification. In reality, solving these kinds of problems is challenging for us. This concept also applies to understanding why major companies like Kodak fail despite their initial success. It's easy to determine what is right or wrong "after the event has already ended."

### 3 The Importance of Practice

Students who have practiced interviewing, such as through History Taking in medicine or counseling in psychology, are likely to be more proficient. This is because the skills needed to gain insight from consumers during the empathize phase are quite similar. There's a fascinating experiment where a teacher graded two groups of photography students differently. One group had to submit just one great photo to get an A, while the other group had to submit lots of photos, with more submissions leading to a better grade. In the end, the second group produced many of the best pictures because practice makes perfect. The first group, which focused on just one photo, is like someone who reads about riding a bike but can't actually ride.

### 4 Questioning the Status Quo

Brushing our teeth is a daily habit. We get up in the morning and brush our teeth before leaving home, and we do the same before going to bed. But consider this: when you're 80 years old, will you still use a toothbrush? Some might confidently say yes, while others might think something new will replace it in 20 years. Some may be unsure. Now, ask yourself: why do you brush your teeth today? Many would say it's necessary, to avoid tooth decay. It's just what we do. I started brushing my teeth because my mother told me to when I was under five, and I've done it ever since without much thought. But oral care isn't just about toothbrushes, there's mouthwash and other solutions too. If we don't pay attention to these small details in our daily routines, problems can go unnoticed, and we can't solve issues we aren't aware of.

### 5 Sharing and Prototyping Ideas

Everyone has a moment when they suddenly think of something cool and have to quickly find a piece of paper or get out of the tub to write down the idea. But the problem for many of us is that we write it down and leave it like that, never doing anything with the cool idea we came up with while relaxing. What can help with this is having good people or communities. You should have a close friend who, no matter how stupid you say something to them, will not judge or laugh at you. When you think of something good, tell your friend about it! And that friend will probably give you some feedback.

But the problem with talking like this is that sometimes the images you see are not the same. Imagine trying to explain the features of a chair to a stone age person, how it's different from sitting on a rock. It's a piece of plastic with four legs that can be moved easily and sat on. Whether or not they nod at you, the tendency is that they won't be interested until you actually make the chair for them to sit on. The point is, if you want good feedback, you shouldn't just share ideas; you should also make prototypes for them to try out. And prototypes don't mean something big that costs thousands of dollars

to build. Get some paper, pens, string, scissors, tape, popsicle sticks. These simple materials are usually all you need to create a simple prototype that can be used to communicate your idea to others.

## 6 The “Good Student” Paradox

Many of you reading this might be successful students. However, being a good student often comes with a downside—it can indicate that you’re playing it safe. Getting good grades is usually straightforward: you study hard, attend classes, and prepare for exams. The issue isn’t with being prepared; it’s with the effects this mindset can have. It can lead to an excessive attachment to your achievements, inflating your ego to the point where you believe you’re always right and stop listening to others. This fear of looking foolish may cause you to stick to actions that seem smart, like using technical jargon that others may not understand, or offering critiques without proposing solutions. Instructors often see this behavior in fields like engineering and accounting, where students sometimes develop a sense of superiority. They end up doing only what they believe clever people should do.

I’ve realized that I, too, have exhibited this ego in conversations with students from other departments. One book that has helped me address this issue is *Ego Is the Enemy* by Ryan Holiday, which provides valuable insights on managing and overcoming our ego.

## 7 Silence is Not Agreement; Silence is Respect

Sometimes, the ability to “appear to be listening” is crucial. Consider a case study from a Stanford master’s program, where most of the learners—many of whom were affluent—were dissatisfied with one of the lecturers and demanded a full refund from the program director. The question arises: how should the director handle such a situation?

The director chose to enter the lecture room and announced that he would listen to every piece of feedback from the students. He then stood silently for hours, absorbing every harsh criticism without offering excuses or proposing immediate solutions. As the students finished expressing their feedback, their anger began to subside. Only then did the program director thank them for their thought, assure them that he would do his best to address the issues, and promise to return with a solution the next day. However, he also offered them the option to receive a full refund if they were unwilling to give him a chance to make improvements.

The program continues to operate successfully to this day. To handle challenges like these, it’s essential to have the right body language and communication skills. I recommend watching the YouTube channel ‘Charisma on Command’ as a great way to improve these abilities.

## 8 Ideation

When brainstorming ideas for group projects, it's crucial to keep the idea generation and critique stages separate. Allowing one person to write down ideas while others take turns suggesting them might seem harmless, but it can create a subtle pressure where participants feel judged by their peers during the idea-throwing process. This judgment can discourage creativity, as people may hesitate to share ideas for fear of being labeled as "crappy."

To foster a more open and creative environment, consider playing a game called "Hey, that's cool." The rules are simple: no matter what the person before you says, you must respond with "Hey, that's cool" and then build upon their idea, regardless of how good or silly it seems. For instance, if the problem is global warming, one person might say, "If we all help each other not use air conditioners, we can help solve global warming." The next person responds, "Hey, that's cool. If we don't use air conditioners, maybe if every house had a swimming pool, it wouldn't be hot anymore." The third might add, "Hey, that's cool. In addition to swimming pools, what if we cut off electricity in every house? That could reduce heat." The conversation continues, encouraging free-flowing, unjudged ideas.

You might wonder why this exercise is useful, especially when it involves discussing seemingly ridiculous ideas. The key is that through this playful, nonjudgmental process, truly innovative ideas often emerge. The prerequisite for these "golden" ideas is that they need to come from a place of fun and spontaneity, which is why embracing silliness during brainstorming is essential.

For effective idea generation, the atmosphere should not only be stress-free but also filled with laughter—enough to make everyone think, "What on earth are we talking about? This is so ridiculous!" Yet, it's this very absurdity that often leads to breakthroughs.

If you're brainstorming alone, you can still replicate this process. Laugh to yourself as you jot down ideas in a notebook or note-taking app. In group settings, it helps if everyone has a stack of Post-it notes and a pen. As soon as an idea pops into your head, write it down and stick it up for everyone to see. In the class, the goal was to come up with 200 ideas in 20 minutes—focusing on quantity first, with quality being evaluated later.

## 9 Workshop 1: The Ideal Wallet

The first workshop that the student had to do in the classroom was design thinking from start to finish. First, design an ideal wallet. Then, design a wallet for the friend sitting next to you. Begin by interviewing the friend (who must not know each other beforehand). Ask questions, observe their current wallet, and avoid asking the user for solutions on what a good wallet should look like. Use the keyword "Why" to explore promising points. Next, spend four minutes brainstorming 20 ideas (though realistically, no one in the class reached 20; most had 10+) about what could solve problems for the friend.

Finally, take these ideas and create a prototype using materials provided at the back of the room (straw ropes, post-it notes, markers, scissors, cloth tape, etc.). You have seven minutes to create the prototype. Then, show what you've made to your friend (without trying to sell it!). If you want to say anything, you can only explain the features of what your creation can do.

## **10 Workshop 2: The In-Building Diaries**

This 30-minute workshop requires students to form pairs and interview two of the following three individuals: a janitor, a security guard, and a motorcycle taxi driver. The aim is to understand their current financial status. Students are encouraged to ask any questions needed to gather this information. Each pair should conduct their interviews in a single conversation without relying on pre-listed questions. If the interviewer connects deeply with the interviewee and resonates with their personal stories, it's possible that the interviewee might become emotional.

## **11 Assignment 1: Table Talks**

Try to organize at least two group meals with four to five friends from different fields of study, either for lunch or dinner. During these meals, engage in meaningful conversations by asking everyone to introduce themselves and share their responses. Follow up by asking each person about their dreams and fears, and actively listen to their answers. Use this opportunity to discuss how you might be able to support your friends in achieving their dreams. This activity is one of my best experience as a university student, as it's rare for students from different faculties to engage in meaningful conversations about their aspirations and challenges. What might seem cool to one department can be entirely different for another.

## **12 Assignment 2: Hospital Insights**

Create a group of three people, making sure to include individuals you haven't worked with before. Your task is to observe and interview at least five individuals during a minimum three-hour session at one of the following locations: Lersin Hospital, Siriraj Hospital, Ramathibodi Hospital, or Queen Sirikit National Institute of Child Health.

## **13 Assignment 3: Redesigning the "Young Lecturer (Under 40) Experience" at CU**

Our team, consisting of five members from the Engineering, Psychology, Arts, Science, and Accountancy departments, was formed by our lecturer for a one-

month project. In the first week, we are tasked with conducting one-hour interviews with three young (j40) lecturers and spending an entire day shadowing another young lecturer. Additionally, we need to schedule a meal together as a team. In the following two weeks, we must select one of the lecturers we have interviewed or shadowed, define pain points, brainstorm 200 ideas, and then return to them for feedback on those ideas. The final deliverables for this design thinking process include a three-minute pitching video, a 10-slide presentation (10 minutes) that details our experience with the design thinking process, and a reflection on our team dynamics.

## **Revised by**

The secret Minecraft character ‘ob’ helped revise version 1.1.