

Eye of the Tiger



Time Needed: 15 minutes
No. of People: 2 per group
Supplies: Pencil, paper, eraser

Being able to express your thoughts and ideas clearly is an essential skill that is crucial during the initial stages of the engineering design process (EDP). Drawing and sketching are effective tools to achieving this objective. This activity proves that everybody has the ability to sketch out their ideas and with practice, become even better.

Objectives:

1. Build confidence in drawing abilities
2. Develop observational skills and attention to detail

Instructions:

- PART I (3-5 minutes)
 - Partner up in groups of two.
 - Spend 2 minutes and draw a human eye. No cheating! Do not look at anyone's eyes or other people's paper, rely only on your memory and draw an eye however you think a human eye should look.
 - Questions to discuss:
 - Did you do better or worse than you thought? Ask your partner about their opinion.
- PART II (8-10 minutes)
 - Repeat Part I, but this time draw your partner's eye, just one of them. You will have to communicate with your partner when to look up to observe details and when to look down and draw.
 - Pay close attention to detail. Notice the shape of your partner's eye. Do they have a crease on their eyelid? Do they have crows feet? What about eyelashes? Feel free to include eyebrows. Draw for about 7 minutes.
 - Questions to discuss:
 - Did you do better or worse than you thought? Ask your partner about their opinion.
 - Was there an improvement over the drawing in Part I?
 - Did the scale of your drawings change? Why?

Why is this activity effective?¹

1. Participants who do not know each other well are forced to look each other in the eyes, this encourages a sense of knowing their partner better.
2. Participants have to learn to communicate with their partner, as they need to take turns sketching and looking up for their partner to see their eye.
3. This process encourages the participants to draw exactly what they *see*, not what they know to be true about eyes (participant's sketches typically look similar to their partner's unique eye).
 - a. As the participant's get better at accurately sketching a physical artifact, the better they will become at sketching ideas they are conceptualizing.

¹ Activity credit to Dr. Bryony DuPont, Assistant Professor of Mechanical Engineering at Oregon State University.