

Encoding Insight

The final step with visualization is to generate new insights with your mental pictures that you're creating. Now this step can take a little while to reach. Sometimes in the beginning, most of the ideas that you're adding vividness to, are just to help memorability. They don't really help you understand the idea better by adding more colors, shapes, and sounds. However, as you progress, you can actually use visualization as a type of metaphor as a way of changing the idea and moving parts around in your mind to see how it will actually impact the core idea. Now this can take a little while to get to, so don't stress it. If you're just in your first thirty day trial, focus on diagramming and sketching part and also focus on trying to create that mental representation. This will help you the most. But if you've mastered those techniques and you want to go a bit further, then you can focus on encoding insights into your metaphors and into your visualizations.

So let's go through one example of how this would work. And the example I'm going to use is the Net Present Value Concept from finance. Basically what this concept is, is it's a way, set of formulas and theories of how you can figure out how much money spread over a period of time would be worth today. So if you're going to get \$100 every year over the next 10 years, this is a way of figuring out how much that money would be worth to you if you had it all right now.

So the first step would be to do a simple diagram, a simple sketch figuring out ok, this is how the idea works, and this is how it would be fitting over a period of time. So I've provided you with a sketch right now that I've prepared in advance.

The next step is to take that mental representation and combine it with a little bit of imagination and metaphor in a mental representation. So the metaphor I came up with here is a perspective drawing. So the idea is that in a perspective drawing, you're trying to represent a 3D space in 2 dimensions. And the way you do that is the things that are farther away are actually physically smaller in terms of area on the drawing. So if you imagine a long corridor, everything eventually shrinks to zero which is very similar to the idea that in net present value everything asymptotically shrinks to zero. So if you have \$100 but it occurs 2,000 years from now, it's going to be worth less than \$100 that is occurring right now

So the next step is to kind of imagine this scene in your head, and you can use this metaphor/visualization as a way to understand the idea better. The final step of encoding insight is to actually take that mental picture and manipulate it to kind of see if you can generate new insights about the way the idea works. So one idea for myself is what would happen if you change the interest rate. How would that relate to the metaphor we're having? And for me, my insight was that this would change the angle of view. So the angle of view on the camera is how quickly things shrink off into the distance. Which is the same with changing the interest rate in a net present value calculation. So if I can imagine my image in my head warping, turning into almost a fish eye lens as it's getting to its extreme, I

can use this visual analysis, this visual addition as a way of generating insight of this is what it would look like to change the interest rate on a payment.

Now, this is a long step to go from sketching to a metaphor to a mental representation and finally to generating a new insight from the existing metaphor through a visualization. That can take a little while to get to and you won't reach that with all ideas, nor do you have to reach that with all ideas. However, if you see that as the continuum of where you can take ideas in order to fully understand them in that deep, holistic level, then that's one way of doing it. Starting with the sketch, going into a mental representation, into a mental image, visualizing it, adding metaphor, adding analogy, and then finally exploring that analogy through a mental representation to get more insight.

So try that with yourself. Work through your concepts and see if you can progress an idea past the mental representation stage, see if you cannot generate new insights by trying to manipulate the idea and seeing how a manipulation of the concept would manipulate your idea, your mental...

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