

Connecting Logic in Notes

With flow-based note taking, a common strategy people use is the “mind mapping” strategy, where you start with the central idea and you branch everything outwards. I tend not to use this idea because it kind of pre-commits you to the shape of the ideas that you’re going to be understanding and the type of information connections you’re going to be making, in advance. I prefer to use a local strategy of connecting logic between ideas. This is the process where you take ideas and, as you’re listening to them, you write down notes. And as you see associations, you drop them down with arrows or connections on the page. You don’t force a particular structure of an entire branching tree, but you focus on something narrow and small so you can create ideas and add other connections.

So let’s walk through a quick example of that. This is an example of me taking flow-based notes from a video recording of an MIT Computer Science lecture. Now, even if you can’t follow the specific content of the lecture because you’re not a computer science student, just focus on the way I’m taking notes. The flow-based note taking style has advantages and disadvantages, so you may only want to use some of the elements depending on the kind of class situation that you’re in, but it can be really useful.

So what I’m doing right now is I’m writing down elements that are important—so things that are new insights for me from the class—and I’m also linking in my own thoughts. So here I’m mentioning he’s brought up “ $n \log n$ ” as being the cap on sorting time and then I’m thinking in my head of my own examples—which he’s not discussing right now—but in my own head of examples that fit this paradigm. So I’m using the flow-based notes to actively think through the examples, and I can use the arrows to create examples and then branch back to the original line of thinking. So I don’t need to take notes in an entirely linear fashion. I can go back, so as here I’m branching off and it’s the first idea even though I’d already branched off to create examples, and this allows you to create a more complicated web of notes, and allows you to go back and fix ideas and change ideas, so it’s not in a strictly linear format.

Again, it’s also helpful to put things into your own words, so if you just regurgitate what the professor is writing then you won’t really think about the ideas, but if you write them in your own words, that will help a lot. Here, I’m writing down an example that was actually mentioned earlier in the lecture, but now I have a place to fit it in with my mental construct of what’s going on: In this case, that “order n squared” applied for this specific restriction of only being able to swap adjacent elements. You’ll also notice that I made a quick mistake when I was creating that example, where I put that quick sort’s worst case was “order $n \log n$ ”, but it’s actually the average case’s “order $n \log n$.”

So sometimes you will make these mistakes when you’re making examples and you’re extrapolating and you’re trying to think ahead of what’s going on in the class. But you can always go back and correct them; it’s just basically the process of dissecting your thoughts and putting them on paper. Now, the advantage of this approach is that it allows you to think clearly about the ideas; the disadvantage is it doesn’t perform a perfectly good record for saving later. If you want to do that, I suggest an after note strategy of taking normal notes and then following up with actual notes in flow-based format.