a complex intellectual response to the text in order to write about it in an interesting and compelling way.

Synthesizing

Once you implement this reading process and do some initial reading in your source set, you should start to see connections between your sources. Likely they will be pursuing some of the same questions, using similar kinds of exhibits or illustrations, and circling around a small set of explanations. When you read for research purposes, it is important not to treat each text in isolation. Instead, try to understand how the texts are talking back and forth to one another on a small set of issues.

In order to demonstrate one way to systematically represent the structural relationships in a conversation, let's review a visual representation of the research conversation represented in Sam Anderson's *New York* magazine piece "In Defense of Distraction" (2010). In it, Anderson reviews the scientific literature on distraction and multitasking with the purpose of challenging the notion that we are mired in a "crisis of attention." While Anderson admits that opportunities for distraction abound in our media-saturated society, he argues that mindful distraction can be a source of creativity and insight. Anderson's article discusses 10 different writers' views on the subject. That means he has condensed 10 or more different articles and books into several paragraphs of text to arrive at his own synthesis of their ideas. No researcher, not even a professional like Anderson, can hold the details of 10 complicated texts in mind. So as you learn more, it becomes important to develop some efficient means of representing a lot of material in a clear efficient way. One way to do this is to create a **synthesis table**, where the views of several different writers on a single topic are entered. Table 4.3 illustrates part of one Anderson might have made.

Table 4.3: Synthesis table

Writer Name	Question: What are the causes and characteristics of the "attention crisis," and what can be done about it?
Herbert Simon	We live in a society where we have access to too much information. Too much information "consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention, and a need to allocate that attention efficiently" (Anderson, 2010, para. 3).
David Meyer	Multitasking is a myth. Our brains process information across many different channels. When we "multitask" we're rapidly switching between channels. When a channel gets overloaded, our brains become "inefficient and mistake-prone" (Anderson, 2010, para. 12).
Linda Stone	The prevalence of networked mobile computing/communication devices means that we are frequently in a state of "continuous partial attention," which makes it hard to sustain focus (Anderson, 2010, para. 14).
Winifred Gallagher	While the world constantly intrudes on our attention, paying attention is an act of will. We should be able to choose to focus (Anderson, 2010, para. 15). Because the capacity of our attention is limited to 110 bits of information per second, we must choose to spend our attention on worthwhile things (para. 21). When we do not choose to spend our attention wisely, we should blame ourselves (para. 22).

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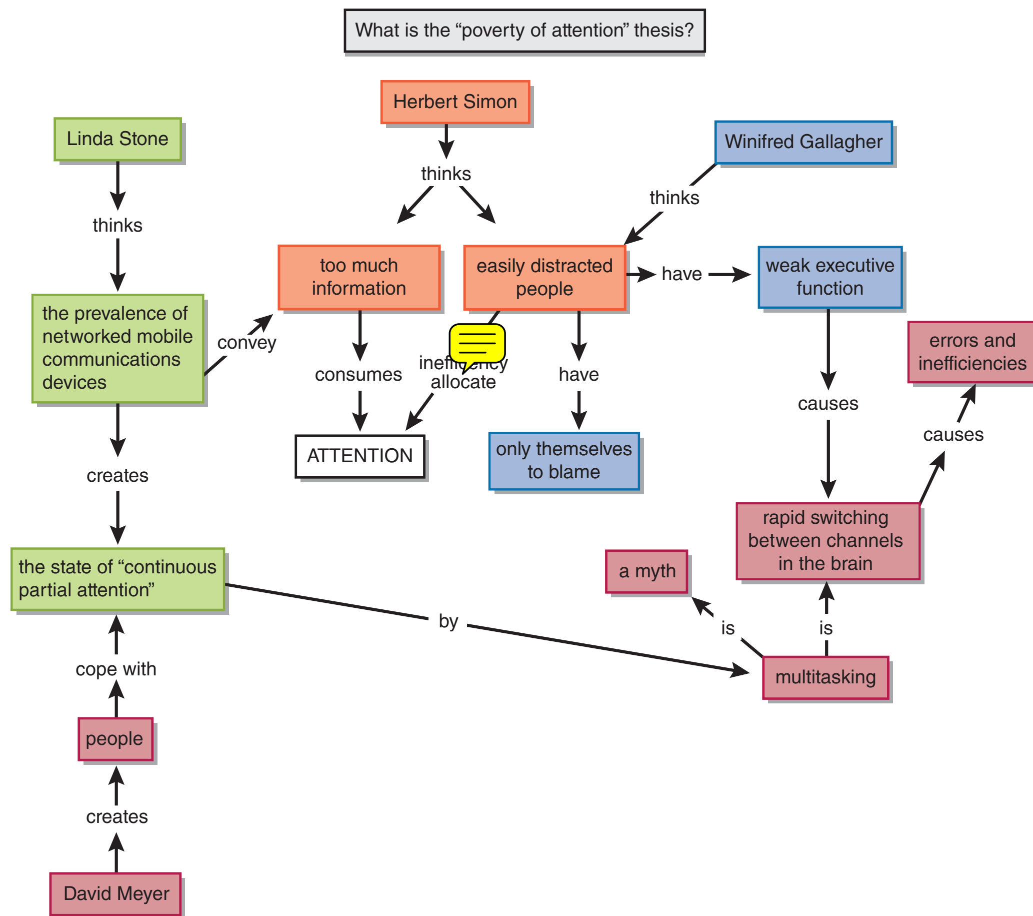
While a synthesis table enables you to see the divergent views of the concept at a glance, it does not easily capture the relationships among the views. A **concept map** does a much better job. Figure 4.1 shows what a concept map based on Anderson's synthesis might look like:

Figure 4.1: Concept map of Anderson's synthesis



Thinking creatively about concepts and questions—including using concept maps—helps to sort out your ideas and notes and synthesize the information in a useful way.

Concept maps are designed to answer single questions—in this case, "What is the 'poverty of attention' thesis?" The thoughts of each writer are color coded so that you can easily see which ideas belong to each writer, and where their ideas overlap. As you review the concept map, you will see how much detail it conveys, as well as gaining a sense of which writers agree with one another, and which dissent from the others.

To better understand how to create concept maps, visit the Institute for Human and Machine Cognition website at http://cmap.ihmc.us/docs/conceptmap.html. For now, remember this: However you decide to take notes on your reading, when it comes time

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to synthesize, be sure to capture areas of disagreement as well as agreement. Being able to acknowledge that there are alternative ways of thinking about your questions and responding to them fairly and thoughtfully is a prerequisite for joining the conversation of researchers in your essay.

Once you understand who is saying what in the conversation, you can use your synthesis table or concept map to write a sequence of paragraphs in which you synthesize what you have learned from the literature. As we explained in Chapter 1, writers of syntheses weave together significant strands of previous research to create a bigger more useful picture of what the research community knows. More than summary, synthesis is an interpretive account of the literature. By "interpretive account," we mean that as you explain what other writers have written, you also explain what you think is the significance of the meaning of the literature. Here is an example of what a synthesis might look like in Emma's essay. Notice that while much of the first two paragraphs are straightforward description of other writers' ideas, the final two paragraphs evaluate the utility of the pieces of research discussed. Paragraph 3 explains what Emma thinks her sources have gotten right. Paragraph 4 details what she thinks they have gotten wrong.

> **Para. 1:** There has been a lot of hand-wringing going on in the last 5 years about what "kids these days" are doing on the Internet, and what the Internet is doing to kids. Parents, teachers, clergy, and a host of commentators fear that the generation technology writer John Palfrey (2008) deems "born digital" is categorically different from previous generations because of how deeply their lives are intertwined with communications technologies. Tethered to one another via mobile phones, Facebook, and IM/texting, well-equipped teenagers are undeniably what linguist Naomi Baron (2008) calls "always-on," inseparable both from their gadgets and one another (p. 8).
>
> **Para. 2:** For Baron, Palfrey, and Emory University English professor Mark Bauerlein, the fact that teens live at least partially in a virtual world is troubling. Baron worries that all this online writing that teens do is weakening their ability to use written language effectively. Palfrey is concerned that the sometimes risqué traces of Digital Natives' personal lives posted on Facebook, in forums, and other public places online expose them to both humiliation and danger (2008, p. 7). Bauerlein thinks provocatively that today's online teens are "the dumbest generation" yet, precisely because their online connections to one another wrap them in a growth-stunting "generational cocoon" (2008, p. 10).
>
> **Para. 3:** It is undeniable that today's teens (well, those with the financial wherewithal to afford pricey smartphones and data plans) live in a media/technology–rich environment that is shaping who they are, how they think, and what they see as their purpose in life. Bauerlein is correct that teens' virtual activities reflect their powerfully absorbing interest in the dynamics and culture of teen life. John Palfrey gets it right when he writes that "new digital technologies—computers, cellphones, Sidekicks—are primary mediators of human-to-human connections. They have created a 24/7 network that blends the human with the technical to a degree we haven't experienced before, and it is transforming human relationships in

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fundamental ways" (2008, pp. 4–5). What is more, their digital connectedness is transforming how knowledge is created and distributed, and how teaching and learning happen.

Para. 4: But Baron, Palfrey, and Bauerlein are wrong to view this moment of admittedly transformative change in human communications as a historic cusp, a moment threatening the collapse of reason, economy, and civic virtue. Despite what Palfrey writes, we are not "at a crossroads." There are more than "two possible paths before us—one in which we destroy what is great about the Internet, and one in which we make smart choices and head towards a bright future in a digital age" (2008, p. 7). While Palfrey is almost right that the "choices we are making now will govern how our children and grandchildren live their lives in many important ways," it is important not to think about the transformations that come with our move into the digital world in the either/or terms of moral panic (2008, p. 7).

When you write your synthesis, remember to attribute ideas to the researcher from whom you borrowed them. In the four paragraphs above, notice how many times the names Baron, Palfrey, and Bauerlein are repeated. Also, notice how the credentials of each researcher are presented at least once in the sequence. You will also want to use the specialized language that you find in texts you are synthesizing. Whenever possible, weave the quoted passages into sentences of your own, as Emma does throughout her synthesis. If you use these strategies, your reader should be able to easily distinguish between the views and ideas of other writers and yours.

Using Research to Answer Supporting and Essential Questions

With her project definition, well-designed set of sources, reading notes, and synthesis maps, Emma is ready to begin to try tentatively answering her supporting questions using the ideas, concepts, cases, and interpretive frameworks she finds in her sources. Her first step is to use these resources to formulate specific answers to her supporting questions. She should try to answer her questions as definitively as possible, presenting supporting data and analysis to be persuasive. She must also convey the full range of informed opinion represented in the conversation—including divergent points of view, alternative explanations, and areas of controversy, as well as the data and analysis supporting these alternative views. As she is answering her supporting questions, she should also start thinking about what these tentative answers suggest about elements of her essential question. Periodically, she should try to answer her essential question by writing a holistic account of her research and the conversation to which she has listened.

As Emma tries to explain what she thinks is happening when teen girls use Facebook within the context of their friendships and romantic relationships, she will develop ideas of her own and begin to recognize gaps in her research. For example, Emma has no peer reviewed research explaining the developmental dynamics underpinning teen girls' formation of friendships and romantic relationships. While Emma has much research remaining, from here on out, the research work of Phase II is to repeat the process detailed above as her ideas evolve and gaps appear. Eventually, as she refines her stock of ideas, cases, and interpretive concepts; tests varying explanations; and develops her set of sources, she will arrive at a conviction that she knows why, in developmental terms, teen girls use the Internet to socialize with peers and romantic interests. She will be ready, that is, to formulate

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