Imagine you are a chemist, working for a company. I am your boss. I know everything you're doing in lab, and am very interested in a lot of detail about what you do, how you do it, what your results are, and what sort of errors have occurred in your work. I am also curious about your ideas for improving the lab and how your errors specifically affect your work. Thus, I ask you a lot of questions (the analysis questions). The lab reports you write are for me, and I use them to judge how well you're doing in your job and whether or not to fire you.

*My* boss, however, while interested in what's going on in my lab, can't be bothered with every tiny detail of what my employees are doing. My boss needs to read a *summary* of what you did, how you did it, what your results were and what they mean. My boss knows a lot about chemistry and labs in general, but is not aware of what specific work you are doing at any given point in time. Your conclusions are written for *my* boss, who wants to know what's going on without reading an entire lab report.

Keeping this in mind, your conclusions have to have several characteristics. They need to be short enough for my boss to read without getting bored, but long enough to cover all the important information. They need to explain why you were doing a lab and using valuable resources (the objectives). The conclusion needs to explain how the lab was carried out with enough detail so that my boss knows what you were doing and what equipment you were using, but it doesn't have to be detailed enough for her to go into lab and do it herself (that's what the procedures are for, so that another scientist can duplicate your work). The conclusion has to generally explain how you generated your results without duplicating every single calculation you did in the lab report (if my boss cares that much, she can read the entire lab report). The conclusion, most importantly, has to give the results of the experiment. My boss has to know that you are actually accomplishing what you set out to do in lab. The conclusion also has to include an error analysis, so that my boss knows that you recognize that certain things might have gone wrong and that those things, when corrected, would produce better results next time around. Finally, the conclusion has to be written with the grammar and spelling of a professional, not the shortcuts of a teenage texter in a hurry.

In short, your conclusion is an executive summary of your work for someone who knows chemistry, is interested in the work you are doing, and has a lot of say about your next assignment. Your conclusion tells my boss that you are an excellent chemist who is ready and willing to be promoted to take over *my* job. (Or, to put it in terms you care more about, it tells a college that you have done college-level lab work in high school and that you deserve credit for the work that you have done and the knowledge that you have gained!)