

## Biology EE – Smoking – RPPF

This is not an official Reflections on Planning and Progress Form (RPPF). It has been created for discussion, as a sample of what students and supervisors might write. You can assess it according to Criterion E: Engagement. It accompanies an example essay from the Philpot Education Support Site.

RPPF	Candidate's comments
First reflection	<p>I have always found it intriguing that some athletes smoke. Besides greater questions I have about why anyone would do this, it's also interesting to ask how the human body responds to this seemingly contradictory behaviour. I wonder: How would an 'athletic smoker' measure up to a 'couch potato'? How could I compare the two and measure their differences? I have talked to my supervisor about this and he has told me about a nifty little device called a spirometer, which measures lung capacity. He has suggested that I focus on the effects of sport and smoking on a single organ, and the lungs seem to be the obvious choice. I imagine that this kind of research has been done before, but I'm not sure if anyone has focused on teenagers. Seeing as I'm surrounded by them at school, I might want to run an experiment on them, with their permission of course. (153 words)</p>
Interim reflection	<p>I have my research question, which ties in nicely to my hypothesis. "To what extent does smoking affect vital capacity in teenagers?" My hypothesis is that physically active non-smokers are going to have the same lung capacity non-active non-smokers. In other words their smoking pretty much nullifies their physical activity, making them just as winded as lazy people when walking up stairs. I've already read some articles on this topic of lung capacity, which my supervisor helped me find, as they were hard to access in scientific journals. And it seems that I will have to take a few other variables into consideration like height and gender. I'm finding it hard to actually find smokers among the population of my school. I've handed out questionnaires, but very few of the smokers are willing to come forward and participate in the experiment, even though it's anonymous. My supervisor says I should move forward with the few smokers I have found, as the deadline for the rough draft is approaching quickly. (169 words)</p>
Final reflection (viva voce)	<p>It's nice to have this done and over with, as the essay and the experiment seemed long and drawn out. I was constantly on the look out for physically active smokers, the ones that originally intrigued me. But it turns out that they are very rare, especially at my international school. So it's unfortunate that I only had 2 male smokers and 8 female smokers. And then there was the outlier, whose VC rates were so low that he must have some pulmonary disease that he did not know about. All in all, my results are non-conclusive because my participant numbers were not significant. Despite these disappointments, I learned a lot from the experience of conducting the research and experiment. (120)</p>

#### Supervisor's comments

Veronika was very committed to this extended essay. She showed perseverance and dedication to the experiment and research, despite low participation numbers for her experiment. She was especially thorough in the application of her (scientific) methods. Her hypothesis was clear, and her research question was feasible. The experiment was repeatable, and the results were measurable. As a bonus, she learned a lot about MS Word and Excel, as she documented and reported her results very effectively. It was an honour to supervise her on this essay.