



The title should summarize the paper's main idea and identify the variables under discussion and the relationship between them.

The title should be centered on the page, typed in 12-point Times New Roman Font. It should not be bolded, underlined, or italicized.

Effects of Smoking on Blood Oxygenation Level



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The author's name and institution should be double-spaced and centered.

The running head is a shortened version of the paper's full title, and it is used to help readers identify the titles for published articles (even if your paper is not intended for publication, your paper should still have a running head).

The running head cannot exceed 50 characters, including spaces and punctuation. The running head's title should be in capital letters. The running head should be flush left, and page numbers should be flush right. On the title page, the running head should include the words "Running head." For pages following the title page, repeat the running head in all caps without "Running head."

Blue boxes contain directions for writing and citing in APA style.

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Abstract

The abstract is a brief summary of the study, allowing readers to quickly review the main points, purpose, methods, and results of the study.

The abstract should be between 150-250 words. Abbreviations and acronyms used in the paper should be defined in the abstract.

Smoking kills 5.4 million people per year (Mackay, 2007). One possible reason people smoke is because of their lack of understanding of the harm it actually does to the body. For example, smokers may not be aware of the effect of smoking on their blood oxygenation levels, as the smoke inhaled damages the biological mechanisms needed to carry oxygen through the bloodstream (Witting, 2008; Polito, 2005). This research project examines the relationship between smoking and blood oxygenation levels by comparing two groups, smokers and non-smokers, and by using a pulse oximeter to measure blood oxygenation levels. Based on previous research, the results from this project should show that smokers' blood oxygenation levels are lower than non-smokers, because smokers' bodies transport oxygen less efficiently. Means, standard deviations, and t-tests were used to calculate the differences between each groups' blood oxygenation levels. While it was hoped there would be a drastic difference between groups, no significant difference was found.

Keywords: blood oxygenation, smoking

Do not indent the abstract paragraph. Indent all paragraphs following the abstract.

When writing your report, give agency to the research and not you, the researcher. Avoid using first-person pronouns (I, we, me, etc.); instead, begin sentences with elements referring to the study: "The results show . . .," "Previous research states . . ." Be clear and concise.

Effects of Smoking on Blood Oxygenation Level

Smoking is a highly addictive trend in 21st century America. It is responsible for an array of illnesses including a multitude of cancers, heart disease, emphysema, and chronic bronchitis. Although the whole body is negatively affected by smoking, the heart and lungs are the most adversely affected organs. Carbon monoxide, which is a major component of cigarette smoke, binds to the hemoglobin and therein prevents oxygen from doing so. This causes a lower amount of oxygen to be transported through the blood and carried to the cells of the body (Witting, 2008). Hydrogen cyanide, another major component in cigarette smoke, prevents the lungs from cleaning themselves. This allows the cilia, the tiny hairs in the lungs that are responsible for ridding the lungs of toxins, to become damaged. With the cilia damaged, the lungs are not as effective at transferring oxygen into the bloodstream, which again causes blood to carry less oxygen than is needed (Polito, 2005). Because of these two factors, the blood oxygenation level of a smoker is going to be noticeably less than that of a non-smoker. Testing the blood oxygenation levels of smokers and non-smokers should demonstrate that smoking does cause the body to less effectively transport oxygen from the lungs to the cells of the body.

Method

The purpose of this experiment is to prove that smoking does cause a person to have a lower blood oxygenation level. To test the amount of oxygen in a person's blood, a pulse oximeter was used. This machine uses two infrared lights (one on the bottom and one on the top of the finger), because oxygenated blood and deoxygenated blood absorb the lights at different rates. The machine can be used to calculate the percent of the blood that has absorbed oxygen or is oxygenated (Gareeb, 2009).

The introduction presents the problem that the paper addresses. It provides more detail about the problem than the abstract does. See the OWL resources on introductions: <http://owl.english.purdue.edu/owl/resource/724/01/>

In-text citations include the author's/ authors' name/s and the publication year.

The publication year and the not page number is used, because APA users are concerned with the date of the article (the more current the better).

The Method section shows how the study was conducted and the population used. Describe how data was collected (e.g., surveys, pulse oximeter, etc.) and the research design, if applicable.

Level 1 headings start with the method section and should be centered, bolded, and typed in 12 point Times New Roman.

Thirteen non-smokers and 13 smokers were tested using the pulse oximeter. An average blood oxygenation level was found for each group and the data was compared.

Results

The results of the experiment were not different from the hypothesis. After testing 26 subjects (13 smokers and 13 non-smokers), the blood oxygenation level of smokers and non-smokers did not show significant difference. Table 1 shows that the average blood oxygenation level for smokers was 97% and the average blood oxygenation level for non-smokers was 98%. This is significantly less of a difference than expected. The standard deviation for the smokers' data was .85, and the standard deviation for the non-smokers' data was .72. The data was relatively close together in value. The t-test results are .244, meaning the data is too close together to be statistically significant. Graph 1 shows the difference in the average blood oxygenation levels of smokers and non-smokers.

Table 1

Statistical Analysis of Participants' Blood Oxygenation

	M (%)	SD	T-test
Smokers	97	.85	.244
Non Smokers	98	.72	.244

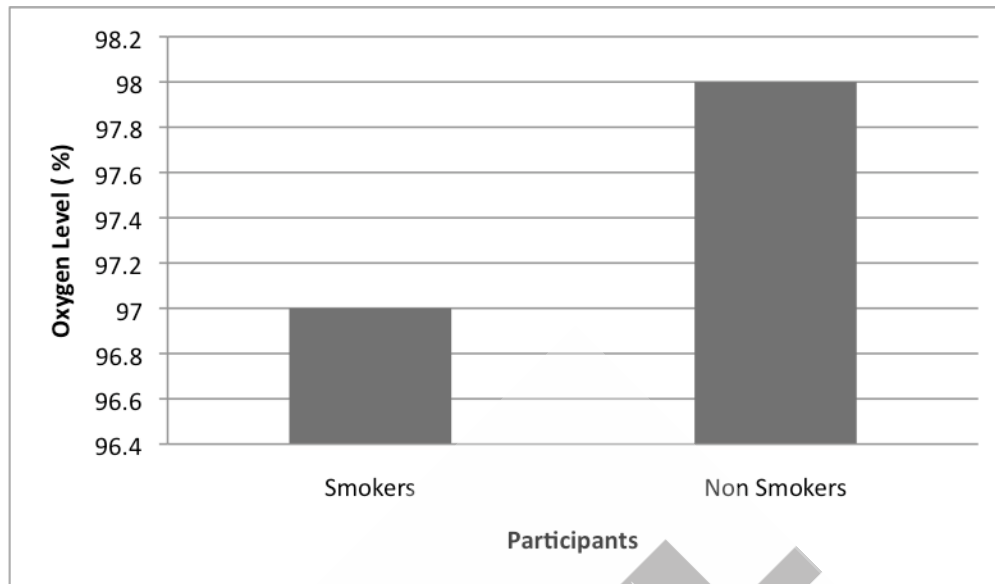
The Results section summarizes the data and the performed analysis/analyses. The results justify the conclusion made from the study; therefore, be sure to report your results in detail.

Use two spaces after a period throughout your paper.



Graphs and tables should have brief yet clear titles ("Statistical Analysis . . .") and labels ("Table 1"). They should be introduced in the text. Titles and labels should be concise, i.e., using "SD" for "standard deviation."

Graph 1

Average Blood Oxygenation Levels

Graphs and tables should have brief yet clear titles (“Statistical Analysis . . .”) and labels (“Table 1”). They should be introduced in the text. Titles and labels should be concise, i.e., using “SD” for “standard deviation.”

Discussion

The small difference between the blood oxygenation level of the smokers and non-smokers was surprising, as the expected difference was drastic. One of the biggest limitations in the experiment and what caused these unexpected results was that most of the subjects tested were rather young. Therefore, subjects had not been smoking for a very long time. It is possible that the true ill-effects of smoking could take a few years to be seen and/or have a negative effect on the blood oxygenation level of the smoker and, therefore, would not have shown up in our experiment. It would be interesting to re-test the same smokers (assuming they still smoke) over a period of time to see if their blood oxygenation level decreases the longer they smoke.

The Discussion section evaluates and interprets the results. Draw conclusions from your data in this section to show whether or not your hypothesis is supported; explain why it is or is not supported. Discuss the potential limitations of the study and how the study could be improved.

References

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Start the reference list on a new page, center and bold the title
"Referen-ces," and alphabetize the entries. Do not underline or italicize the title.
Double-space all entries. Every article mentioned in the paper should have an entry.