Academic Phrases for Writing Methods Section of a Research Paper

Source: <https://www.ref-n-write.com/blog/research-paper-sample-writing-methods-section-academic-phrasebank-vocabulary/>

The methods section that follows the introduction section should provide a clear description of the experimental procedure, and the reasons behind the choice of specific experimental methods. The methods section should be elaborate enough so that the readers can repeat the experimental procedure and reproduce the results. The scientific rigor of the paper is judged by your materials and methods section, so make sure you elaborate on all the fine details of your experiment. Explain the procedures step-by-step by splitting the main section into multiple sub-sections. Order procedures chronologically with subheadings. Use past tense to describe what you did since you are reporting on a completed experiment. The methods section should describe how the research question was answered and explain how the results were analyzed. Clearly explain various statistical methods used for significance testing and the reasons behind the choice.

 The methods section of your research paper should include the following:

* Experimental setup
* Data collection
* Data analysis
* Statistical testing
* Assumptions
* Remit of the experiment

**1. Experimental setup**

This experimental design was employed because \_\_  
In the course of the experiment, \_\_ played an important role.  
The experiments were performed with \_\_  
This was experimentally investigated by \_\_  
Most experiments have been carried out with \_\_  
The main focus of the experiments was to calculate \_\_  
Prior to each experiment \_\_  
The experiments are completely based on \_\_  
In our preliminary experiments we estimated that \_\_  
In this experiment, we introduced a \_\_  
Methods were based on previous experiments \_\_  
This  proceeds in two stages: \_\_  
After a series of experiments it was found that \_\_  
Therefore, in this experiment we define goals as \_\_  
In this experiment, we introduced a \_\_  
We consider the setup generic, however, \_\_   
This was designed to acquire approximately \_\_  
These were designed in such a way that \_\_  
This experimental design was employed because \_\_  
This was specifically designed for \_\_  
This was designed to acquire approximately \_\_

**2. Data collection**

There were \_\_ participants in this sample.  
Participants first provided informed consent about \_\_  
We performed additional data collection with \_\_  
For this study, we analyzed the data collected from \_\_  
The data are less clear-cut than \_\_  
Data were collected and maintained by \_\_  
For this purpose, we employ survey data collected from \_\_  
The application employs data obtained from \_\_  
The analyzed data included: \_\_  
The procedures of handling the data followed the suggestions of \_\_  
Subsequently, \_\_ were then used to elicit further data.  
The experimental data on \_\_ is very scarce.  
The data in this work consists of \_\_  
Survey data were collected from \_\_  
This study used different data collection methods such as \_\_  
The quality can be enhanced by providing additional data for\_\_  
Such data are prone to \_\_  
We utilize secondary data from \_\_  
The data was divided into \_\_  
Participants in the first data collection were \_\_  
The sample was heterogeneous with respect to \_\_  
The sample size in this study was not considered large enough for\_\_  
We cannot deny the presence of some sample selection biases because \_\_  
The sample of respondents included \_\_  
The researchers pooled samples to \_\_  
The sample strategy was the same as for\_\_

**3. Data analysis**

However, there are trends in our data to suggest that \_\_  
The trend values were then subjected to \_\_  
We analysed data as a function of \_\_  
We used an established technique, namely \_\_, to analyse \_\_  
This showed a judgement error of \_\_  
To investigate this statistically, we calculated \_\_  
A \_\_ test was used to determine the significance of data  
Our data show that there is \_\_  
Our data suggest that \_\_ which  may be based partly on \_\_  
Data also revealed a significant \_\_  
Our data also address the \_\_  
Data were analyzed and correlated with \_\_  
The data are presented in Table \_\_  
However, according to our data \_\_  
We undertake the empirical analysis using data collected in \_\_  
The data is analyzed from different points of view such as \_\_  
The data reveals significant differences in \_\_  
Thus, the data supports the premise that \_\_  
Results provides a good fit to the data \_\_  
We compared the results with the original data in ways \_\_  
The evaluation of the data is shown in \_\_  
We explicitly accounted for \_\_  
Missing values were replaced using \_\_  
This analysis was confined to \_\_  
The evaluation of the data presented in this work leads to \_\_

**4. Statistical testing**

We explored these effects statistically by \_\_  
Statistical analyses was performed by using the \_\_ applying a significance level of \_\_  
The results were statistically significant when compared using \_\_  
This was normally distributed throughout the study population.  
This distribution resulted in \_\_  
Significant differences in the \_\_ remained.  
This was the only parameter that had a statistically significant correlation with \_\_  
We used \_\_ statistics to report \_\_  
This had a statistically significant impact on \_\_  
The correlation between \_\_ and \_\_ is positive and statistically significant at \_\_  
We calculate \_\_ statistic to test the null hypothesis that \_\_  
As shown in Table \_\_ are statistically significant at all levels.  
We can clearly see that the estimated values are positive and statistically significant at \_\_  
This revealed no statistical differences on \_\_  
The test for \_\_ found no significant differences.  
Our results show a statistically significant improvement in \_\_  
All differences in performance were statistically significant in \_\_  
The method achieves a statistically significant improvement compared to \_\_  
In order to obtain statistically representative \_\_ it is required to \_\_  
To investigate this statistically, we calculated \_\_  
Descriptive statistics were calculated for all variables used in the study using \_\_  
The significance testing was based on \_\_  
All statistical analyses were performed using \_\_

**5. Assumptions**

Such a potentially unrealistic assumption arises from the fact that \_\_  
Based on these assumptions, hypotheses were developed: \_\_  
Based on these assumptions, \_\_ have been treated as \_\_  
This is based on assumptions that \_\_  
These assumptions are generally accepted these days\_\_  
The fundamental assumptions of the  models are: \_\_  
This assumption is supported by the fact that \_\_  
Under certain assumptions, \_\_ can be construed as \_\_  
These assumptions result in \_\_  
This assumption might be addressed in future studies by \_\_  
This compilation of research assumptions should result in \_\_  
These assumptions have been disproved by \_\_  
According to \_\_ assumption, the study reports faithfully \_\_

**6. Remit of the experiment**

For the current work, it is sufficient to point out that \_\_  
Because we were interested in \_\_, we considered only \_\_  
This was sufficient to \_\_  
This is sufficiently generic to be adapted to other \_\_  
This is generally sufficient to produce good results.  
Still, results might be sufficient, especially in \_\_  
This was not possible due to insufficient observations.  
After a series of experiments \_\_ was considered as sufficient.  
It has been proven that \_\_ must be sufficient to \_\_  
This was not sensitive enough to \_\_  
This study cannot be considered large enough for \_\_  
This is simpler and usually sufficient to \_\_  
It turns out that it is sufficiently accurate for \_\_  
There is in fact sufficient information present in \_\_  
This is considered sufficiently unique for \_\_  
This is enough to get a sufficiently accurate solution.