EXERCISE 5.2 - Analysis

Read the following example of a method section from the field of wildlife science. The study investigated the blood chemistry of bears and the relationship to seasonal changes in bears' activity. Identify the information elements you find in each sentence of the selection. Some sentences may contain more than one element.

RATIO OF SERUM UREA TO SERUM CREATININE IN WILD BLACK BEARS

*Method*

[1]Our 3-year study of changes in the ratio of serum urea to serum creatinine in Colorado wild bears began in the winter of 1981 and ended in the fall of J983. [2] The investigation was performed in the Black Mesa-Crystal Creek area in west-central Colorado. [3]The study area has three major vegetation bands: a mountain shrub community at lower elevations (2235 to 2330 m), large aspen forests at elevations between 2330 and 3330m, and mixed forests of Engelmann spruce and fir at higher elevations. [4]A total of 76 blood samples were obtained from 27 female and 21 male bears. [5]Bears were captured with Aldrich spring-activated foot and lower leg snares. [6]Snared bears were immobilized with a combination of ketamine hydrochloride and xylazine hydrochloride. [7]A six-foot pole was used to administer the drug. [8]In winter the bears were located with a radio signal emitted by the bears' collars. [9]The samples were cooled, serum was separated from red blood cells, and urea and creatinine concentrations were determined. [10]Statistical analysis of changes in blood parameters was done with Scheffe's comparison because seasonal values could not be considered either independent or dependent.

| | INFORMATION ELEMENT | | INFORMATION ELEMENT |
|---|---|---|---|
| Sentence 1: | _____ | Sentence 6: | _____ |
| Sentence 2: | _____ | Sentence 7: | _____ |
| Sentence 3: | _____ | Sentence 8: | _____ |
| Sentence 4: | _____ | Sentence 9: | _____ |
| Sentence 5: | _____ | Sentence 10: | _____ |

EXERCISE 5.3 Arrangement

The method section from a research report in the field of medicine is given here with the sentences in scrambled order. Rearrange and number the sentences in a more conventional order, as you think the authors originally wrote them.

## MAINTENANCE ENERGY COST OF PREGNANCY AND INFLUENCE OF DIETARY STATUS IN RURAL GAMBIAN WOMEN

*Method*

a. _____In other respects, the supplemented twelve women were similar to the unsupplemented. All received the same clinical and prenatal care

b. _____ At the time of birth, the weight, head circumference, and gestational age of the babies were assessed as described previously (Lawrence et al., 1983)

c. _____ Twelve women from one of these villages were offered supplementary food 6 days a week. The remaining ten women from the other two villages were unsupplemented.

d. _____Resting metabolic rate (RMR) and body weight for each woman were measured approximately every 6 weeks during pregnancy. Subjects were asked not to eat or drink beforehand. After the subject had lain quietly in an air-conditioned room for 30 min, RMR was measured by open-circuit calorimetry.

e. _____Twenty-two pregnant women ages 20-32 years from three villages in a remote rural area of Gambia, West Africa, were investigated.

f. _____ The subjects breathed through a respiratory valve and expired air was collected into a Douglas bag. The volume was measured with a lodge capacity wet-type gas meter (Alexander Wright Co Ltd, London). Oxygen and carbon dioxide concentrations were measured with a Servomex DA580 oxygen analyser (Taylor Instrument Analytics Ltd, Crowborough, Sussex) and a model SSI carbon dioxide analyser (Analytical Development Co Ltd, Herts).

## 5.9 - Gap-fill exercise

This procedural description is about natural gas policy. Fill in each blank space with any appropriate *be* auxiliary or *past participle*.

[1]A mathematical model_____. developed for the evaluation of alternative natural gas policies. [2]The model is based upon a simplified energy-demand function which relates the quantity of energy consumed to price. [3]This relationship _____ not _____ by a statistical procedure. [4]Rather, parameters_____ specified which, on the basis of previous studies, were_____to approximate market behavior.

[5]Energy consumption *was* defined to include natural gas, oil, and electricity_____ _____in the residential, commercial, and industrial sectors. [6]Fuels used for transportation and oil__ for industrial feedstock were _____because natural gas is not generally used for these purposes. [7]It is used to produce anhydrous ammonia, but this use was also _____

[8]The supply and price of natural gas *and* the prices of potential natural gas substitutes_____specified for each policy option. [9]The model was then_____ _____to calculate the price of energy, the quantity of energy, arid the quantities of natural gas substitutes that would_____consumed. [10]From this information, policy alternatives _____ evaluated by comparing the consumer expenditure _____ with each policy.