Physiology Lessons
for use with the
Biopac Student Lab

PC under Windows® 98SE, Me, 2000 Pro
or Macintosh® 8.6 – 9.1

Manual Revision
PL3.6.7-ML3.0.7/112403

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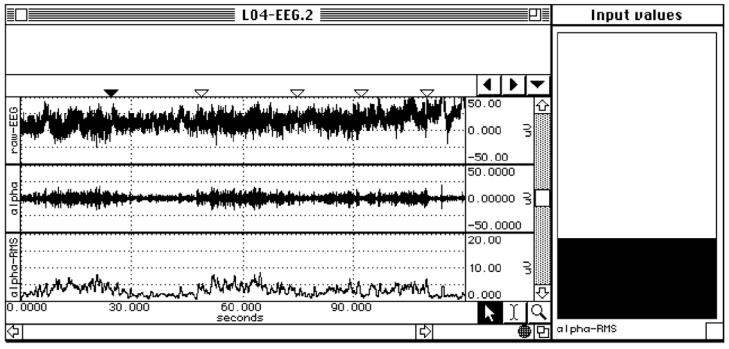
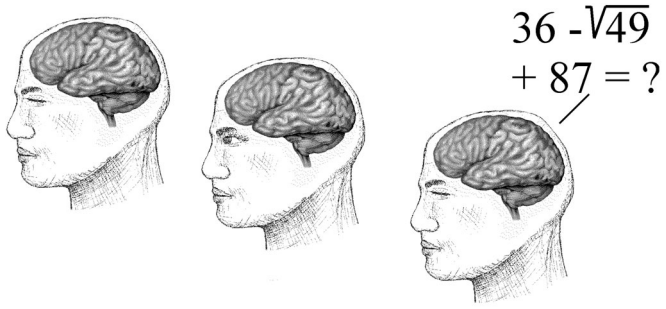
Lesson 4 Data Report

ELECTROENCEPHALOGRAPHY II

EEG II

Alpha Rhythms in the occipital lobe





Lesson 4

ELECTROENCEPHALOGRAPHY II

EEG II

DATA REPORT

Student's Name: _____

Lab Section: _____

Date: _____

I. Data and Calculations

Subject Profile

Name_____ Height_____

Age_____ Weight_____

Gender: Male or Female

Amplitudes

A. Complete Table 4.1 with the amplitudes of the recorded data in the control and experimental conditions.

Table 4.1

Segment	Condition	Raw EEG [1-Stddev]	Alpha [40-Stddev]	Alpha rms [41-Mean]
1	Eyes Closed (Control)			
2	Eyes Closed, performing Mental Math			
3	Eyes Closed, recovering from Hyperventilation			
4	Eyes Open			

Frequency

B. What is the frequency of an alpha rhythm from Segment 1 data?_____Hz

Does this agree with the expected values? Yes No

C. Complete Table 4.2 with the mean values of alpha-rms channel from Table 4.1.

The "Control Mean" is the mean alpha-rms from data Segment 1. You will need to calculate the difference between the Experimental Mean and the Control Mean. Summarize whether the Experimental Mean was larger (+), smaller (–), or the same (=) as the Control Mean.

Table 4.2

Segment	Experimental Condition	Experimental Mean	Control Mean (Seg 1)	Calculate the Difference (Exp. - Control)	Summary (+, –, =)
2	Performing Mental Math				
3	Recovering from Hyperventilation				
4	Eyes open				

II. Questions:

D. Refer to Table 4.1: When was the general amplitude of the EEG highest?

E. Refer to Table 4.1: When were the alpha wave levels highest?

F. Refer to Table 4.1: How do your results compare with the information presented in the Introduction?

G. Did Subject need to concentrate during math problems? Yes No
How would the level of concentration required affect the data?

H. What might account for the amplitude difference of waves recorded from a subject tested alone, in a darkened room, and subjects tested in a lab full of students?

I. Which conditions produced the lowest alpha activity?

End of Lesson 4 Report