

Rationale for Budget Requests: Year I, Jan/82 - Dec/82.

This budget is the largest (\$85,789.00) I have requested to date and although I have tried to be very conservative in my needs and expenditures for this longitudinal study, the first phase (Year I) just necessitates more staff and equipment if a high quality product is desired in the fifth year.

Salaries:

Principal Investigator: The salary request here is in line with the updated salaries of the ROH. For a Registered Psychologist in the province of Ontario, the beginning salary is \$30,478.00 and the yearly increment is \$1,378.00. As I now have 4 years of experience, the salary level is \$35,990.00. As CTMC kindly added additional monies to cover my benefits last year, I included this 10% with assumption of course that this is purely optional to CTMC.

Research Technician: Two full-time research technicians are required for assistance in this study. One technician is needed in the laboratory in assisting psychophysiological recordings and a second technician is required in assisting, initiating and maintaining sample records, and for coding, storing and analysing of data. As two full time salaries at a technical level is a heavy expense, I have decided to take on only one full time technician for psychophysiological records and to spend less than half of the amount of the salary (to be used for a second technician) in hiring a part-time computer programmer to develop the software capacity of the micro-processor in the laboratory so that it can take over the major work and time involved in coding, storing and analysing data.

At the ROH, a full-time psycho-technician starts at \$14,382.00 with yearly increments of \$730.00. As the technician I have in mind already has 9 months of relevant experience elsewhere and will be available for a full-time position in January, a salary of \$15,000 would be appropriate for this position. Salary for a computer programmer on a part-time contract is estimated to run at \$7,000.00. It should be made clear here, that the salary for this part-time position would only be required for one year and it would then terminate.

Major Equipment: At present my Beckman polygraph houses four amplifiers and this simply means I can only record 4 measures. To go into a longitudinal study of such potential with this restricted number of physiological measures would be a catastrophe and it is proposed here that we at least double the number of amplifiers to eight. As Beckman prices have greatly increased

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with inflation etc. (i.e. to purchase 4 additional amplifiers and associated couplers from Beckman would cost approximately \$10,000.00) I intend to purchase 4 separate stand-alone amplifiers of similar quality which are compatible with my microprocessor's A-D converter but are much less expensive than Beckman, the price of these is \$6,000.00.

In order to carry out some of the sophisticated data acquisition and analysis of "attentional" and "cognitive" components of brain event related potentials, specific physiological filters are required to get rid of unwanted electrical noise in order to examine the extremely small but significant brain responses. The price of these 4 filters is \$4,000.00.

Up to this point I have been presenting auditory stimuli via an external tone generator which is triggered by the microprocessor. This has faltered several times and has required repairs, probably because of its age. In addition, in order to elicit specific brain potentials, high quality control over auditory stimulus characteristics (eg. frequency, duration, intervals, rise and decay time etc.) and this necessitates a new sound generator which incorporates these facets. The price of this is \$2,500.00.

The impedance meter is required to ensure that electrode-skin resistance levels are at a sufficiently low level so as to obtain clean noise-free electrical responses. The price of this is \$300.00.

Supplies: The polygraph paper, ink and electrodes (\$1,500.00) are of course self-explanatory and the computer disks (\$2,000.00) are necessary for data storage.

Subject Payment: The biggest strategic problem facing this investigation is getting the family (both the parent for the interview and the child for the recording) motivated to be involved in the study. From past experience and in relating to researchers who have done research within the school system, monetary payment definitely enhances this probability. It is proposed here that a minimum of \$10,00.00 be paid to each as both parent and child will devote two hours of his or her time. Total cost is \$6,000.00. pic

Miscellaneous: Published questionnaires on personality and psychological tests must be purchased and the cost is estimated to be \$1,000.00. Mail is an essential process if contact is to be maintained with the sample pool and the cost here is estimated at \$100.00. Filing cabinets are needed for physical

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storage of the questionnaires, polygraph paper etc. (\$600.00);  
A calculator is needed for minor descriptive tests and  
assistance within the lab (cost is \$200.00).

In Summary, and as stated in the covering letter, I am aware  
that this is a large financial request but I trust that CTMC  
will keep in mind that this holds only for the demands of the  
first year of the 5 year grant. The financial commitment for  
the 2nd to the 5th years will be similar in nature to what was  
being requested in my last 4 years, i.e. monies for salary  
(in this case 2 salaries: the principal investigator and  
technician) and approximately \$10,000.00 extra for laboratory  
demands.

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