An assessment of factors affecting computer awareness and computer literacy in Sri Lankan undergraduates

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Holding of fine computer knowledge is valuable for higher education. It progresses the study of university undergraduates of better standard. This paper is based on a study to assess the factors affecting computer awareness and computer literacy of entering freshmen in the University of Colombo, using a survey conducted among 300 new entrants of five faculties. Analyses of the results show that 60% of the freshmen are computer aware whereas only 47% are computer literate. According to the definitions for the computer awareness and computer literacy used in this study, 60% of the new entrants had known about the fundamentals of computer, internet etc. and 47% hold skills to perform the tasks in basic operating system functions, word processing, spreadsheets, presentation, database, internet and e-mail. In addition, around 60% of the new entrants have used internet before they enter the university. The descriptive analysis further shows that when the monthly family income decreases, the percentage of computer awareness and computer literacy also decreases. Two logistic models, one each for binary variables computer awareness and computer literacy, were fitted. The logistic model for computer awareness shows that the response variable is dependent on the factors such as gender, computer literacy and frequency of using internet. The logistic model for computer literacy includes four significant variables namely; internet usage, monthly family income, computer awareness and frequency of using a computer and those seem to have most effect on having computer literacy. Goodness of fit was adequate for above two models and diagnostic analyses were also carried out. Some of the significant findings are, a person with computer literacy is almost three times more likely to be computer aware than someone who is computer illiterate, and a male person is twice as likely as a female person to be computer aware. It is also found that a person who is surfing internet, is more than eight times more likely to be computer literate than a person who is not surfing internet. Results of the two models reveal the factors affecting computer awareness and computer literacy separately. These bivariate responses can also be further combined and fit a generalized logit model to discover the effect of the explanatory variables on the combined response. The findings provide evidence that the computer modules at University of Colombo should concentrate more on improving the computer literacy skill of students by providing necessary instructions and practical experience.