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Your proposal number: 2379

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Main domain/theme & Topic(s):

Social research, policy and practice

Social policy and social welfare

Proposal title:

BRAINMATICS: CAN HAND-HELD TECHNOLOGIES AMELIORATE THE EARLY ONSET OF DEMENTIA? – A MODEL FOR A LONGITUDINAL INVESTIGATION OF PRE-DIAGNOSED BUT POTENTIALLY SUSCEPTIBLE DEMENTIA SUFFERS

Summary of your abstract:

Australia is typical of OECD countries experiencing rapid ageing of the population and increases in the incidence of dementia. Recent reports show Australians who have dementia and Alzheimer's diseases have been increasing over the last two to three decades. The real cost of dementia was estimated to be \$5.6 billion in 2002 with over 162,000 cases reported (Access Economics 2004). It was further estimated that by 2050 some 730,000 could be afflicted if prevention activities are not found (Access Economics 2005). The report concludes any preventative activities that can delay the onset of dementia will lead to a better quality of life and make significant savings in future health cost.

This project aims to contribute to early intervention and management of dementia. The project involves evaluating the use of hand-held technology as an early intervention measure to identify if undertaking regular cognitive training reduces early onset of dementia. It employs research of Kawashima (2005) and others that encourages brain activities in people as a way of countering brain dysfunction. Through the use of game technology, the study tests various techniques that will provide enjoyable stimuli to people's brains. The longitudinal study measures the impact of 'brainmatics', ubiquitous small game machines on cognitive function. Research undertaken (Doidge 2008) shows that the more educated, and physically and socially active a person, the less likely he/she is to fall victim to the disease. However, studies have only been able to show an association but not causality. By capturing physical, educational, and social characteristics of participants and studying their activities and cognitive progress over an extended period (which appears not to have been undertaken before), this study may unlock some secrets to ameliorating the early onset of dementia. This paper reports the literature, conceptual model, research methodology