

Hsu Y-L [徐業良]. Cross-strait research collaboration symposium: Facing the aging society. *Journal of Gerontechnology and Service Management* 2014;2(2):91-106;

doi:10.6283/JOCSG.2014.2.2.91 Based on very similar cultural backgrounds, lifestyles and family types, cross-strait research collaboration between scholars from Taiwan and China Mainland is being planned under the theme 'Responding to the Aging Society'. To enhance the understanding on both sides, the Cross-Strait Research Collaboration Symposium was held in Yuan Ze University, Taiwan on September 4th, 2014. This paper presents the four issues planned for the cross-strait collaboration. Abstracts of the 30 speeches by scholars from Taiwan and China Mainland are collected [in Chinese].

Keywords: responding to the aging society, cross-strait research collaboration

Chen T-C [陳聰堅], Tuan P-C [段伴虬], Hsieh M-H [謝敏惠]. Service blueprint and failure mode analysis of community-based tele-healthcare system for the seniors. *Journal of Gerontechnology and Service Management* 2014;2(2):107-114; doi:10.6283/JOCSG.2014.2.2.107 Tele-healthcare combining information and communication technology with health information management platform has been a major trend in the aging society. The service design of tele-healthcare greatly affects the motivation of users to use the system. This study applied the Service Experience Engineering (SEE) approach for service blueprint processes and failure mode analysis to a community tele-healthcare system for the seniors. The purpose is to identify potential service failure points, propose solutions to enhance service processes, and to provide suggestions to service development teams for subsequent service design tasks [in Chinese].

Keywords: tele-healthcare, Service Experience Engineering, service blueprint, failure mode analysis

Yu C-Y [游倩瑜], Hsu C-H [許晴惠], Huang S-T [黃湘婷], Chan C-Y [黃楚涵], Huang C-H [詹家楹], Che H-L [車慧蓮]. Innovative design of a versatile toe-space cleaning rod. *Journal of Gerontechnology and Service Management* 2014;2(2):115-122; doi:

10.6283/JOCSG.2014.2.2.115 Ageing is a natural process and people suffer varying degrees of decline in bodily activities and functions. Bathing is one of the most physically demanding daily activities faced by older adults. Many older adults cannot fully wash themselves independently and require help from others. Inability to clearly express personal needs and lack of bathing-assistance tools gives rise to problems in the bathing process. The most common problems are that bathing is not thorough, and after bathing, the area between the toes is difficult to dry, and localized swellings may develop. Because of their length, materials or difficulty of use, products currently on the market are not really suitable for use by older adults. This paper presents innovative design of a versatile toe-space cleaning rod. With its rotating telescopic pole, it can easily be adjusted for toe cleaning without bending over. Made of plastic, it can be grasped easily in one hand, enabling use even if muscular strength is low. In addition, the front end of the pole has a universal connector, enabling attachment of either a toe-cleaning 'rake' or back-scratching device for dealing independently with itching. The four prongs of the toe-cleaning rake contain silicone gel, eliminating odors, and the fabric-coated outer surface is both flexible and tensile. The cypress back-scratcher can provide relief from itching, and the charcoal-containing bamboo handle eliminates odors. It also has a knobble surface for massage use. This innovative design should be able to successfully bring improved physical comfort to older people [in Chinese].

Keywords: older adults, toe-space, body cleaning, innovative design

ChangChine L-L [張簡琳玲], Lin P-J [林佩蓉], Chen Y-Q [陳永詮], Wang R-J [王壬傑], Wu S-Y [巫紹佑], Lin K-B [林坤炳]. K-Box: An interactive training system for seniors. *Journal of Gerontechnology and Service Management* 2014;2(2):123-128; doi: 10.6283/JOCSG.2014.2.2.123 Dementia is characterized by decreased cognitive functions beyond normal aging, usually associated with behavioral disturbance and other mental health disorders. In Taiwan, the prevalence of dementia becomes higher, resulting in a huge and negative impact on personal

health. The 'mini mental state examination (MMSE)' is commonly used for screening cognitive function. The MMSE provides measures of orientation, registration (immediate memory), short-term memory (but not long-term memory) as well as language functioning, which can be used to indicate the presence of cognitive impairment, such as in a person with suspected dementia. This research applies Kinect motion-sensing technology and voice guidance to develop K-Box, an interactive training system for seniors. Through answering questions designed based on the 5 core dimensions suggested by the MMSE using body motions, this system aims to maintain the active lifestyle for seniors as well as to reduce the risk of developing dementia. To respond to the declines physical and sensory capabilities of seniors, K-Box provides a natural user interface that allows seniors to interact intuitively, and is easy and friendly to operate. Pre-recorded messages by the children and family members are used in the voice guidance to provide positive feedback and motivation to the seniors for using the system [in Chinese].

Keywords: dementia, MMSE, motion-sensing technology, voice guidance

Wang B-J [王本正], Chou H-F [周信甫], Chang Y-M [張郁玫]. *Business process reengineering of medical and healthcare institutions. Journal of Gerontechnology and Service Management 2014;2(2):129-140*; doi:10.6283/JOCSG.2014.2.2.129 The increase in aged population in Taiwan increases the demand for elderly medical care, leading to the excessive use or waste of medical resources and other issues. The purpose of the research is to improve the problem of waste of medical resources by business process reengineering of the medical and health care institutions. Through literature reviews and studies of the current status of medical care in Taiwan, business process reengineering, hospital information systems, health level seven, and cloud health care, we were able to understand the public demand of medical and healthcare resources and to assess the information systems among existing medical institutions, labor and health insurance, and social welfare system. Through the process reengineering based on the policies performed by government agencies, the in-depth interviews, and investigation and analysis of expert's opinion and secondary data, results of literatures were verified, problems in the existing medical and health care processes were identified, and the issue of waste of medical resources was improved. In this study, we developed the reengineered processes in the general medical institutions and the integrated medical and healthcare institutions. Results can be used to save time on exchanging information and improve the medical management systems and services. With future applications of cloud technology, the problems of wasting medical resource and rising social costs are expected to be solved [in Chinese].

Keywords: business process reengineering, HIS, HL7, cloud health care

Sheu T-S [許聰鑫], Wang K-M [王國明], Lin W-Q [林惟秋]. *Exploring the factors affecting Taiwan seniors' overseas traveling intension: An assessment of the theory of self-regulation model. Journal of Gerontechnology and Service Management 2014;2(2):141-152*; doi:10.6283/JOCSG.2014.2.2.141 Based on the theory of reasoned action (TRA), the theory of self-regulation (TSR) includes a new feature 'desire' to mediate the effect of 'attitude' on behavior intension, and thus enhances the prediction of behavior intention. Using seniors' (aged 65 and above) intention of traveling overseas as the research subject, this study verifies the superiority of TSR model in predicting behavior intension than TRA model. Study results show that 'attitude', 'desire', and 'subjective norm' are influential in predicting senior group's overseas traveling intensions. Two practical implications are thus inherently induced: first, acquiring the positive attitude on overseas traveling to further raising the emotional desire of overseas traveling; secondly, 'subjective norm' is the most influential factor in influencing senior group's overseas traveling intentions [in Chinese].

Keywords: theory of reasoned action, theory of self-regulation, senior, traveling intention

Chen S-C [陳聖智], Liu M-F [劉芳], Tseng W-C [曾威智]. *Education of older adults and multimedia applications - the impact of internal, external factors and innovative behavior on the effectiveness of teaching and learning. Journal of Gerontechnology and Service Management*



2014;2(2):153-170; doi:10.6283/JOCSG.2014.2.2.153 The industry related to older adults is becoming unprecedentedly important, and thus the fostering of healthcare professionals is a pressing issue. However, prejudice and discrimination against older adults exists among healthcare professionals to students within the healthcare disciplines. This study aimed to evaluate the curriculum design together with specific teaching and learning strategies supposed to help students who work with older adults more competent. The researchers conducted surveys with a group of students from a medical university. The constructs of the pre-test and post-test included individual factors such as information utilization, self-efficacy, and internal motivation, and external factors such as innovation support. This study aimed to further explore whether students influenced by these factors differed in behaviour, teaching styles and skills, learning, and achievement. According to the research results, the curriculum arrangement of making short films and documentaries may inspire love and respect for older adults and help translate theories learned from class into practice. We also evaluated five core competencies within the curriculum including the index of health evaluation and guiding competence. (i) Having the professional knowledge regarding geriatric health management; (ii) the index of caring and respect literacy: having the humanity caring competence for geriatric caring; (iii) the index of social service spirit: having the humanism service spirit of caring about the society and respecting the elderly; (iv) the index of cross-team communication and cooperation competences: having the competences of cross-team interpersonal communications, coordination, and cooperation; and (v) the index of integration and innovation competences: having the innovation and responding competences of geriatric health management and services. This study demonstrated the usefulness of this curriculum and its effectiveness for talent development. Also, the implementation of media literacy is valuable for the interdisciplinary binding of gerontological education and multimedia applications [in Chinese].

Keywords: elderly health care, multimedia, interdisciplinary, innovative behavior, learning effectiveness

Lu J-M [盧俊銘]. *Design and Implementation of the Introductory Course of Gerontechnology. Journal of Gerontechnology and Service Management 2014;2(2):171-178;*

doi:10.6283/JOCSG.2014.2.2.171 In reaction to the rapid growth of the Gerontechnology industry, human resource development is becoming more and more important. In this study, the design and implementation of the introductory course of the Gerontechnology program in Yuan Ze University is presented. The topics cover health and self-esteem, housing and daily activities, communication and governance, mobility and transport, and work and leisure of older adults. By understanding the effects of aging on these issues, the students are expected to develop the empathy toward older adults and the ability of social care. In addition, the interdisciplinary discussions inspire them to create effective problem-solving experiences regarding technology applications for improving the welfare of older adults. Moreover, activities including the 'eldpathy' program, site visits, service learning, and inter-generational learning further provide the students with stronger interest and motivation to encourage them to study in this field [in Chinese].

Keywords: Gerontechnology, interdisciplinary learning, empathy

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