

Special Points of Interest:

- *A message from Richard Pak, ATG Chair*
- *Designing jobs for successful aging*
- *The dangers of walking in winter weather*
- *Coming events and conferences*

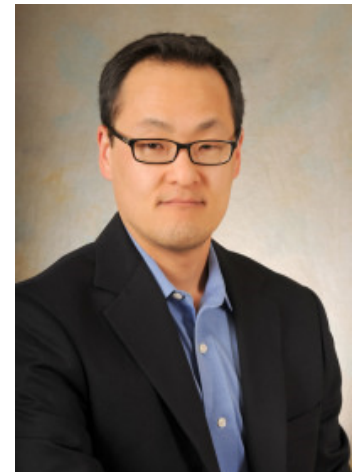


MESSAGE FROM THE CHAIR

This is my first “message from the chair” column so I would like to use this space to first thank Randa Shehab who has let me electronically shadow/nag her to learn the ropes as chair during the transition period. Randa’s service as chair for the past two years has help maintain ATG’s momentum as a great TG. My personal history with ATG is long and started when I was a graduate student (my first ATG meeting was San Diego 2000). My experience of meeting so many like-minded people was clearly positive or I wouldn’t be writing this column over a decade later as chair. Although I am a member of many technical groups within HFES, I’ve maintained membership in the ATG for the longest and look forward to the ATG business meeting the most. This is due to the hard work of Randa, the previous officers, and members who’ve created and maintained such a great TG. I hope to maintain and enhance those positive aspects of ATG (mentorship, networking, education, & fun!).

Helping me do this is your team of recently elected officers. The program chair for the 2010 Annual Meeting in San Francisco is Kari Babski-Reeves (Mississippi State University); program Chair-elect for the 2011 Annual Meeting in Las Vegas is Richard Pak (Clemson University). Kelly Caine (Indiana University) is our secretary/treasurer. Nicholas Cassavaugh (Central Michigan University) is the newsletter editor and Cory-Ann Smarr (Georgia Tech) is our technical webmaster.

Don’t panic but submissions for the next annual meeting are due by February 19th! We should have a list of interesting accepted submissions for ATG in the next edition of the newsletter. Also, for the next edition of the newsletter please consider submitting short articles to Nick on any topic of interest to ATG members. For example, articles highlighting a university department or workplace, members’ jobs and the relevance of aging, or book reviews or web links. Please feel free to communicate with me or any of the officers if you have any other ideas for the ATG. ☺



*Richard Pak
ATG Chair 2009 — 2011*

ATG BUSINESS MEETING SUMMARY

If the need to bring in more chairs is a metric of success, then the Business meeting at the 2009 Annual Meeting was a smashing success; it was one of the largest ATG business meetings I have attended. The Council of Technical Groups (CoTG) would like some ideas to spend money. The only requirement is that it benefits as many TGs

as possible. If you have any ideas, please send them our way and we can direct it to the right person. A top priority is to update the “digital presence” of TGs. Fortunately, we’ve had an online presence for quite a while. However, some ideas were expressed to enhance our digital footprint with the goal of encouraging more discussion

within the group and advertising our presence to the outside world.

The other major point of business was the presentation of the Arnold Small Award and ATG scholarship. The winner of the Arnold Small Award was Jessie Chin (UIUC) for her paper, “Cognition and Ill-

(Continued on page 6)

Inside this issue:

Message from the Chair	1
Business Meeting Summary	1
Can We Design a Job to Promote Successful Aging?	2
Winter weather dangers for older pedestrians	3
ATG Officers	5
Conference Announcement	6
Coming Events	6

AGING TECHNICAL GROUP NEWSLETTER

CAN WE DESIGN A JOB TO PROMOTE SUCCESSFUL AGING?

by Martha J Sanders, PhD, MSOSH, OTR/L, CPE,
Quinnipiac University, Hamden, CT
Martha.sanders@quinnipiac.edu

Baby Boomers are changing the meaning of aging as they reach retirement with better health and cognition than previous generations (Au et al., 2004). No longer are older adults content to passively embrace the “senior” years; older adults are staying actively engaged in the labor force well past traditional retirement years. In fact, over 60% of adults over the age of 55 are returning to the labor force in “bridge jobs”, which are full or part-time jobs considered to be a transition to retirement (Cahill, Giandrea, & Quinn, 2006; Toosi, 2004). Older adults are returning not only to full-fill gaps in pension funds and lost earnings, but also for psychosocial reasons that can be associated with successful aging. The American Association of Retired Persons (AARP) (2003) *Working in Retirement Study* reported that “retired” seniors are working to remain productive (73%), stay mentally engaged (68%), physically active (61%), earn money (51%), do something enjoyable (49%), and be



around people (47%). Qualitative studies add that seniors are also working to maintain a connection with younger generations, enjoy social support, gain social recognition, and to bolster feelings of self-efficacy (Altschuler, 2004; Noonan, 2005; Sanders & McCready, 2009). Rowe and Kahn (1998), prominent gerontologists, have suggested that participation in paid work can promote positive aging for older adults, but no studies have lent specific evidence that working can actually contribute to successful aging.

Human factors and ergonomics professionals understand the impact of job experiences and job design on workers’ experiences. Karasek and Theorell’s Demand Control Model (DCM)(1990) proposed that poorly designed jobs may contribute to psychosocial strain and even adverse health in workers. The DCM suggests that jobs designed to promote active engagement in work, control over the job, and support from colleagues also promote positive psychosocial health in workers. Few studies have examined how the design of a job may impact older workers’ psychosocial health, or how healthy jobs may optimize older workers’ experiences.

In a recent study, Sanders examined how the design of a job may impact older workers’ psychosocial health, namely perceptions of aging successfully. One hundred and fifteen (115) older workers employed as sales associates in the homebuilding industry completed standardized questionnaires with regard to their



perceptions of the job design and their perceptions of aging successfully. The job design referred to how the job is organized to allow the worker control over the job (decision-making and use of a variety of skills) and social support from coworkers and supervisors. Successful aging was measured according to contemporary definitions of aging successfully: having control over one’s life, feeling social support from close family and friends, and passing along information to younger generations (generativity) (Erikson, 1997; Mirowsky & Ross, 1991; Seeman, Lusignolo, Albert, Berkman, 2001; Ross & Wright, 1998; Rowe & Kahn, 1998). It was hypothesized that specific aspects of job design would contribute to these broad perceptions of aging successfully.

Workers were recruited from national homebuilding chains as well as from independently owned homebuilding stores. Participants consisted of mostly white (92%), married (74.3%), men (82.6%) who had completed high school (99%) or some college (60%) and perceived their health to be good to excellent. Their ages ranged from 55 to 81

(Continued on page 4)

WINTER WEATHER DANGERS FOR OLDER PEDESTRIANS

By Robert Dewar, PhD, CPE
Professor Emeritus
University of Calgary



Winter in many parts of North America presents a number of problems for older pedestrians. Ice, snow and slush on sidewalks and roads make walking particularly dangerous for seniors. Physical challenges to older pedestrians include:

- walking more slowly because of unsure footing and increased chance of falling
- poor balance and reduced ability to catch themselves if they slip and start to fall
- reduced agility for those who use canes
- physical difficulty walking due to arthritis and other physical limitations
- the encumbering effects of heavy footwear and clothing.

A major concern among the elderly is failing vision. Older adults are more likely to have lower visual acuity, are more susceptible to glare, and have more difficulty detecting some objects in the roadway environment. The presence of snow also masks curbs and uneven surfaces, increasing the probability of a trip or fall. Because of the need to step carefully, older pedestrians crossing the road are more likely to be looking down at the road surface at the expense of noticing approaching or turning vehicles.

Reduced vision increases the difficulty of seeing at night. Darkness presents problems not only of seeing vehicles and the road environment, but also of being seen by drivers. Pedestrians are much less conspicuous to drivers, as many wear dark clothing and there are more hours of darkness in winter. In addition, pedestrians tend to overestimate the distance from which they can be seen at night.

Problems contributing to accidents among older pedestrians include: misjudging the distances of and intervals between vehicles, stepping off the sidewalk when distracted, watching the traffic lights instead of the traffic, misinterpreting the movement of vehicles, assuming that drivers will yield to them, and impatiently crossing after waiting. All of these problems can be worse under winter conditions.

An additional concern for many seniors is hearing loss. Pedestrians use sound (e.g., traffic noise, horns) to detect the presence of vehicles as well as to judge their speed and distance. This is especially important where there are vehicles turning right at red lights, and in

parking lots. Vehicle sounds may be reduced when there is a layer of snow on the ground.

Many older people are not able to walk fast enough to cross the street at signalized intersections in the time allowed by the WALK signal. The assumed walking speed of 1.2 metres/sec (m/sec) used by traffic engineers to determine timing of pedestrian signals is too fast for many older pedestrians. This problem is worse under many winter conditions, as walking speeds are reduced when the street is covered with snow or ice.

Pedestrians who have certain physical difficulties walk more slowly. Longer walk time intervals are needed at many signalized intersections, especially in winter or when there are large numbers of older pedestrians using the intersection.

In view of these issues, it would be advisable for older people to increase and maintain their fitness, especially balance, when walking.

Some of the ways to make walking safer in winter are:

- wear boots or shoes with soles that will grip on snow and ice
- wear sunglasses to reduce glare on sunny days when the ground is snow-covered
- avoid wearing dark clothing at night
- watch the traffic carefully, as drivers often

(Continued on page 6)

“Many older people are not able to walk fast enough to cross the street . . . in the time allowed by the walk signal”

AGING TECHNICAL GROUP NEWSLETTER

CAN WE DESIGN A JOB TO PROMOTE SUCCESSFUL AGING?

(Continued from page 2)

years old and they had worked in the homebuilding industry for a mean of 10 years, far beyond the expectations for “bridge jobs”. Most had worked in previous jobs that were related to their current job position; thus, this sample of workers had a wealth of experience and was committed to these post-career jobs.

The older workers reported that the job design of a sales associate provided opportunities for them to use skills, make decisions, and experience the social support of colleagues. Older workers provided numerous stories of using past experience to educate customers, teach younger colleagues the “tricks” in the homebuilding trades, and to work as a team with coworkers. The survey results indicated that the design of the job did, in fact, contribute to successful aging outcomes of personal sense of control over life and generativity (passing knowledge on to others). The most important aspects of the job design were their ability to use a variety of skills and experience the support of coworkers. It appeared that keeping skills updated and actively using a variety of skills enabled older workers to pass along knowledge to younger coworkers and customers. A job design which promoted skill use and coworker support enabled them to feel control over their work life and more broadly, over life in general.

Implications of Job Design for Human Factors and Ergonomics Professionals

This information is important for human factors and ergonomics professionals who consult to businesses on a regular basis. The study showed that jobs in which older workers are able to use a variety of skills and experience the support of coworkers can more broadly contribute to the psychosocial health of older adults in aging successfully. The concept that work can promote generativity and personal sense of control is positive since gerontologists are actively seeking ways for older adults to maintain good health in naturally occurring environments.

“Bridge jobs” for older workers should provide opportunities for older workers to use past work experience, learn new skills, and engage in a variety of

Jobs for Baby Boomers should highlight use of skills and interacting with coworkers.

work experiences both for cognitive stimulation and for opportunities to teach others. Managers can promote skill variety by training older workers on updated product developments (Armstrong-Stassen & Templer, 2004) cross-training them in different aspects of a job, and offering opportunities to creatively contribute to the job design.. Ergonomics professionals can recommend that job designs promote *coworker support* through teamwork and cooperative work with other employees (even within entry level jobs). Managers can promote *generativity* by creating opportunities for intergenerational collaboration, enlisting older workers to manage project work teams, mentoring and training younger workers, becoming the subject matter experts for special policies, and participating in the creation of new projects.

This information is relevant not only to individual worker health, but to organizations seeking to define the concept of “age management” a term that is gaining momentum for describing approaches for managing workers based on generational needs (Ilmarinen, 2006).

This study indicates that older workers enjoy the social interaction, learning, exchange of information in customer services jobs. They appear to have the life experience to educate customers and coworkers, the cognition to learn new skills, and the commitment to contribute both to job tasks and organization. Human factors professionals can promote positive work experiences for older workers that can mutually benefit the personal needs of seniors and those of business and industry by implementing these evidenced-based recommendations. ☺

(References provided on facing page.)

References

- Altschuler, J. (2004). Beyond money and survival: The meaning of paid work among older women. *International Journal of Aging and Human Development*, 58 (3), 223-239.
- American Association of Retired Persons (2003). *Staying ahead of the curve: The AARP working in retirement study*. AARP Knowledge Management: Washington, DC Retrieved at: http://research.aarp.org/econ/multiwork_2003_1.pdf
- Armstrong-Stassen, M., & Templer, A. (2004). Adapting training for older employees: The Canadian response to an aging work force. *Journal of Management Development*, 24(1), 57-67.
- Au, R., Seshadri, S., Wolf, P. A., Elias, M. F., Elias, P. K., Sullivan, L., et al. (2004). New norms for a new generation: Cognitive performance in the Framingham Offspring Cohort. *Experimental Aging Research*, 30(4), 333-358.
- Cahill, K.E., Giandrea, M.D., & Quinn, J.F. (2006). Retirement patterns from career employment. *The Gerontologist*, 46 (4), 514-523.
- Erikson, E. (1997). *The life cycle completed: Extended version*. New York: W.W. Norton & Company.
- Ilmarinen, J. (2006). Towards a longer and better working life: A challenge of work force ageing. *Medicina del Lavoro*, 97 (2), 143-147.
- Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. New York: Basic Books.
- Mirowsky, J., & Ross, C. E. (1991). Eliminating defense bias and agreement bias from measures of the sense of control: A 2 X 2 index. *Social Psychology Quarterly*, 54 (2), 127-145.
- Noonan, A. E. (2005). "At this point now": Older workers' reflections on their current employment experiences. *International Journal of Aging and Human Development*, 61(3), 211-214.
- Ross, C. E., & Wright, M. P. (1998). Women's work, men's work, and the sense of control. *Work and Occupations*, 25 (3), 333-356.
- Rowe, J. W., & Kahn, R. L. (1998). *Successful aging*. New York: Dell Publishing, Random House.
- Sanders, M. J., & McCreedy, J. (2009). A qualitative study of two older workers' adaptation to physically demanding work. *Work*, 32(2): 111-122.

 2009-2010 Aging Technical Group Officers

Chair	Richard Pak	richpak@clemsun.edu
Chair-Elect	Anne Collins McLaughlin	anne_mclaughlin@ncsu.edu
Program Chair	Kari Babski Reeves	kari@ise.msstate.edu
Program Chair-elect	Richard Pak	richpak@clemsun.edu
Secretary/Treasurer	Kelly Caine	caine@indiana.edu
Technical Webmaster	Cory-Ann Smarr	cory-ann.smarr@gatech.edu
Newsletter Editor	Nicholas Cassavaugh	cassa1nd@cmich.edu

BUSINESS MEETING SUMMARY (CONT.)

(Continued from page 1)

ness Experience are Associated with Illness Knowledge among Older Adults with Hypertension.”

We also awarded the ATG Research Scholarship to Wei-Ting Yen (Ohio State) for his research on product design for older adults with hand dysfunction. Just as a reminder, the ATG student scholarship eligibility is that the student must be a member of ATG, must be MS or PhD level, and must submit their completed research to the HFES conference within 2 years of receipt of the award. ☺

WINTER WEATHER DANGERS (CONT.)

(Continued from page 3)

- fail to yield to pedestrians who have the right of way
- beware of backing and turning vehicles in parking lots
 - practice judging the speed and distance of approaching vehicles to see if there is enough time to cross the street at unsignalized intersections
 - be patient and wait for a safe gap in traffic if there is no WALK signal
 - use ice grips on canes and crutches when appropriate
 - increase and maintain physical fitness, especially the ability to keep your balance when walking. ☺

CONFERENCE ANNOUNCEMENT

If you're doing aging research, consider the Aging TG as a venue to present your work!

Although our 2009 acceptance rate sounded low (50%), we actually accepted all but one paper that was eligible for the conference. Many submissions were for incomplete research or only an abstract was submitted. All submitters should review the HFES guidelines to make certain their papers fit one of the publication categories. Point your browser to:

<http://www.hfes.org/web/HFESMeetings/2010callforproposals-part1.html>

COMING EVENTS AND CONFERENCES

31st Annual Meeting of the Southern Gerontological Society (2010)

April 7-10, 2010

Richmond, VA

<http://www.southerngerontologicalsociety.org/sqs/annualmeeting/index.asp>

13th Cognitive Aging Conference (2010)

April 15-18, 2010

Atlanta, GA

<http://www.cos.gatech.edu/cac/cac.htm>

54th Annual Meeting HFES (2010)

September 27 - October 1, 2010

San Francisco, CA

<http://www.hfes.org/web/HFESMeetings/meetings.html>

Stock photos provided by StockXpert.com
Author photos provided by the respective authors.

Visit the ATG web site for more information:

<http://www.psychology.gatech.edu/atg/index.html>