# Areas of Academic Work in Informal Learning and Museum Education China, Malaysia, Thailand, India and Japan

Dr. David Anderson is a scholar in the field of Museum Education who has made a highly significant contribution to educational reforms, museums as cultural institutions that support K-12 education and the understanding of informal learning experience across many parts of Asia and other parts of the World. His contributions in recent years have been instrumental in rapidly cultivating educational reforms across Asia that have and continue to transform the relationships between museums and schools, and enhance our understandings of learning in non-formal educational contexts.

# CHINA

#### Museum and School Collaborations in China

**Key Activities:** 1) Foster and develop support for multiple museum and school initiatives to enhance student learning and assist China's museum and schools achieve the objectives of the new national curriculum reforms. 2) UBC-BNU Zhuhai jointly developed discipline focus on Museum Education at the Bachelor of Education (BEd) and Master of Museum Education (MMEd) levels.

#### Referred Journals

Anderson, D. (2009). Understanding the nature of learning from experiences in informal settings. *The 2008 Lecture Series of Beijing Normal University*. Beijing: Beijing University Press.

Kang, C., Anderson, D., Wu, X. (2010). Chinese perceptions of the interface between school and museum education. *Cultural Studies of Science Education*, *5*(3), 665-684.

Kang, C., & Anderson, D., (2009). Perceptions around collaborations between schools and museums in China. *Informal Learning Review, 98*, 18-21.

#### **Invited Addresses**

Anderson, D., (2012). Graduate-Level Museum Education and Collaborative University-Museum Partnerships. Beijing Normal University – Zhuhai – Invited address. University International Speaker Series. Zhuhai, China.

Anderson, D., (2012). Museums as educational institutions in society. Invited address at the Hong Kong Institute of Education, Department of Curriculum and Instruction. Hong Kong, China.

Anderson, D., (2012). Science museums as educational institutions in society. Guangxi Normal University – Special meeting on graduate-level science education. Guilin, China.

Anderson, D. (2008). *Understanding the nature of learning from experiences in informal settings*. Invited address to Faculty of Education, Beijing Normal University. Beijing, China.

Anderson, D. (2008). *Using community educational resources to support the Chinese school curriculum.* Invited address to North-East China Normal University Faculty of Education. Changchun, China.

Anderson, D. (2008). *Educational reforms: Museum and school collaborations for learning.* Keynote address to The 2008 higher-order learning workshop for making use of museum resources to support school education in ZhengZhou. ZhengZhou, Henan, China.

Anderson, D. (2008). *Investigating the impact of teacher preparation in museums*. Invited address to The 2008 higher-order learning workshop for making use of museum recourses to support school education in ZhengZhou. ZhengZhou, Henan, China.

Anderson, D. (2006). *Interfacing the formal / informal education for greater collaboration and partnership.* Invited address – China Association for Science and Technology – Special training conference for museum curators and administrators, Beijing, China.

Anderson, D. (2006). Science centre experiences for science learning - Important trends in science centres and factors for designing effective exhibitions. Invited address – China Association for Science and Technology (CAST) – Special training conference for museum curators, Beijing, China.

Anderson, D. (2005). Learning in informal contexts: Contemporary research in the field of visitor learning. Invited address – Science Education Research Centre, Beijing Normal University, Beijing, China.

Anderson, D. (2005). Science learning in informal contexts: Contemporary research in the field of visitor learning. Invited address – Beijing Association for Science and Technology, Beijing, China.

#### Refereed Conference Papers

Anderson, D., Kang, C., & Wu, X., (2009). *Chinese museum and school reforms – Understanding perceptual barriers to bridge the divide.* Paper presented at the 2009 Annual Meeting of the Visitor Studies Association (VSA). St Louis, MO, USA.

Zeng, Z., Xie, J., Wu, X., Kang, C., & Anderson, D. (2007). *Chinese visitors' perceptions of science museum experiences: The contrast between Sino and Western world views and practices*Paper presented at the 2007 Annual Meeting of the Visitor Studies Association (VSA). Ottawa, Canada.

# **MALAYSIA**

# Creating a Research Agenda for Enhancing Museum Education in Kuala Lumpur

**Key Activities:** Developing a new research agenda to understand how to help K-12 teachers and museum educators of Kuala Lumpur to use museum resources in educationally effective ways.

#### **Invited Addresses**

Anderson, D. (2006). Science centres and museums for science learning. Keynote Address at the 2006 Conference on Teaching and Learning. University of Malaya, Kuala Lumpur, Malaysia.

Anderson, D. (2006). Researching learning in museums: Research methods and learning theory. Invited address – Petronais Science Centre, Kuala Lumpur, Malaysia.

Anderson, D. (2005). *Interfacing the formal / informal education communities leading to opportunities for greater collaboration and partnership.* Invited address – Petronais Science Centre, Kuala Lumpur, Malaysia.

Anderson, D. (2005). *How visitor research can help front-liners*. Invited address – Petronais Science Centre, Kuala Lumpur, Malaysia.

# **THAILAND**

# Professional Development for New Researchers on Museum Education

**Key Activities:** Lecture series to Kasetsart University Faculty of Education on Learning and Teaching in the Museum and opportunities to enhance K-12 Education.

#### **Invited Addresses**

Anderson, D., (2008). *Learning and Teaching in the Museum.* Invited lecture series delivered to the Kasetsart University Faculty of Education. Kasetsart University, Bangkok, Thailand.

#### Refereed Conference Papers

Pitiporntapin, S., Yutakom, N., Phanwichien, K., Erickson, G., & Anderson, D. (2010). Views on science teaching about animals based on Science, Technology, Society, and Environment (STSE) of Bangkok elementary science teachers. Poster presentation at the 41st Australasian Science Education Research Association (ASERA). Port Stephens, New South Wales, Australia

# **INDIA**

# Developmental Support for New Science Museums in India

**Key Activities:** Investigative research to support the development of exhibitions and programs for new science museums in the Punjab and elsewhere in India.

## Referred Journals

Anderson, D., Zhang, Z., Chatterjee, S., Robin, R., & Aldrich, P. (2005). Punjab students' perceived interest, knowledge and importance of science topics: Challenging outcomes from a front-end study. *Visitor Studies*, (8)2, 8-13.

### **Commissioned Reports**

Anderson, D., & Zhang, Z. (2003). Front-end evaluation of Indian students' interest in science topics: A commissioned study of Puspa-Gujral Science City. Unpublished Research Study Report, University of British Columbia, Vancouver, Canada.

# **JAPAN**

## Memories of Japanese World Expositions

**Key Activities:** Memories of Japanese World Exposition - The key research objective is to understand the factors that shape vivid memories in informal settings and harness these understandings to betterment of exhibition and program design in Asia.

#### Referred Journals, Book Chapters and Proceedings

Anderson, D., & Shimizu, H. (2012). Memory characteristics in relation to age and community identity: The influence of rehearsal on visitors' recollections of the 2005 Aichi World Exposition, Japan. *Visitors Studies*, 15(2), pp. TBA.

Shimizu, H., Anderson, D., & Takahashi, M., (2012). Autobiographical memories of specific social events for older and younger adults: Context dependency of the Memory Characteristics Questionnaire on recollection of 1970 and 2005 Japan World Expositions. *Japanese Psychological Research*, *54*(2), 182–194.

Anderson, D. (2008). Japan World Exposition, Osaka, 1970. In J. Findling and K. Pelle (Eds.) *Encyclopedia of World's Fairs and Expositions.* (pp.345-349). Jefferson, NC: McFarland Press.

Anderson, D. (2005). *Memories of Expo 70: Insights on Visitors' Experiences and the Formation of Vivid Long-Term Memories.* Proceedings of the *International Symposium on "World Exposition and Urban Development Comparative Perspective"*. (pp 1-19). The Centre for Japanese Studies, Fudan University, Shanghai, China.

Anderson, D., & Shimizu, H. (2007). Factors shaping vividness of memory episodes: Visitors' long-term memories of the 1970 Japan World Exposition. *Memory*, *15*(2), 177-191.

Anderson, D., & Shimizu, H. (2007). Memories of Expo 70: Visitors' experiences and the retention of vivid long-term memories. *Curator*, *50*(4), 435-454.

Anderson, D., & Shimizu, H., (Submitted). Memory characteristics as a function of age and community identity: Visitors' recollections of the 2005 Aichi World Exposition. *Memory.* (43 Pages). Submitted March 18<sup>th</sup>, 2010.

Anderson, D., Storksdieck, M., & Spock, M. (2007). The long-term impacts of museum experiences. In J. Falk, L. Dierking, and S. Foutz (Eds.) *In Principle, In Practice -New Perspectives on Museums as Learning Institutions*. (pp 197-215). Walnut Creek: Alta Mira Press.

Shimizu, H., Anderson, D., & Takahashi, M. (Submitted). Autobiographical Memories of Specific Social Events for Younger and Older Adults: Context Dependency of the Memory Characteristics Questionnaire on Recollection of 1970 and 2005 Japan World Expositions. *Applied Cognitive Psychology.* (24 pages). Submitted July 22<sup>nd</sup>, 2010.

## **Invited Addresses**

Anderson, D. (2010). *Age and community identity as mediators of memory: Implications for museum.* Invited presentation to the Hokkaido University Museum. Hokkaido University, Sapporo, Japan.

Anderson, D. (2009). Examining the impact of science museums for science literacy: A critical examination of assumptions. Keynote address to the International Symposium on Science Learning at National Museum of Nature and Sciences. Tokyo, Japan.

Anderson, D. (2009). *Memories of Japanese visitors' experiences of the Aichi and Osaka World Expositions*. Invited Address to the Japan Foundation, Tokyo, Japan.

Anderson, D. (2009). *A comparative study of visitors' recollections of the Aichi and Osaka World Expositions*. Invited Address to the Faculty of Psychology, Doshisha University, Kyoto, Japan.

Anderson, D. (2009). *New factors shaping the vividness of long-term memories: A study of visitors' recollections of the Aichi World Expositions*. Invited Address to the Department of Psychology, Nagoya University, Nagoya, Japan.

Anderson, D. (2009). *The psychology of long-term memories: A comparative study of visitors'* recollections of the Aichi and Osaka World Expositions. Invited Address to the Faculty of Humanities and Sciences, Kobe Gakuin University, Kobe, Japan.

Anderson, D., & Shimizu, H. (2009). *Research on visitor memories of the 2005 Aichi and 1970 Osaka expositions*. Invited presentation to the students of Marist Brothers International School Kobe. Kobe, Japan.

Anderson, D. (2005). Memories of Expo 70: Insights on visitors' experiences and the formation of vivid long-term memories. Invited Presentation at the International Symposium on "World Exposition and Urban Development Comparative Perspective". The Centre for Japanese Studies, Fudan University, Shanghai, China.

Anderson, D. (2005). What Is an Unforgettable Expo? Invited address - 2010 Shanghai World Exposition Authority. Shanghai, China.

Anderson, D. (2005). *Memories and World Expositions*. Invited address – Science Education Research Centre, Beijing Normal University, Beijing, China.

## Refereed Conference Papers

Shimizu, H., Anderson, D., & Takahashi, M., (2012). Autobiographical memories of specific social events for older and younger adults: Context dependency of the Memory Characteristics Questionnaire on recollection of 1970 and 2005 Japan World Expositions. Paper presented at The 5th International Conference on Memory (ICOM-4). York, United Kingdom.

Anderson, D., (2010). Community identity and age a factors shaping visitors' memories of the Aichi World Exposition, 2005. Paper presented at the 2010 Annual Meeting of the Visitor Studies Association (VSA). Phoenix, AZ, USA.

Anderson, D. (2004). Visitors' long-term memory of large-scale exhibitions additional insights about developing memorable experiences. Poster presented at the 2004 Annual Meeting of the American Association of Museums (AAM). New Orleans, LA, USA.

Anderson, D. (2003). Visitors' long-term memory of large-scale exhibitions: Lessons for developing experiences with lasting impact. Poster presented at the 2003 Annual Meeting of the American Association of Museums (AAM). Portland, OR, USA.

Anderson, D., & Shimizu, H., (2006). *Factors shaping vividness of memory episodes: Visitor's long-term memories of the 1970 Japan world exposition*. The 4<sup>th</sup> International Conference on Memory (ICOM-4). Sydney, Australia.

Anderson, D., & Shimizu, H. (2005). *Visitors' memories of world expositions: A comparative analysis of themes of memory from contemporary and chronologically distant expos.* Paper presented at the 2005 Annual Meeting of the Visitor Studies Association (VSA). Philadelphia, PA, USA.

Shimizu, H., & Anderson, D. (2006). *Characteristics of autobiographical memories on a specific social event: Some factors influencing on the vividness of memories of 1970 Japan World Exposition.* The 70th Annual Conference of the Japanese Psychological Association, Kyushu University, Fukuoka, Japan.

Shimizu, H., Anderson, D., & Takahashi, M. (2010). *Autobiographical Memories of Specific Social Events for Young and Old Adults: Context Dependency of the Memory Characteristics Questionnaire on Recollection of 1970 and 2005 Japan World Expositions*. Poster presented at the 8<sup>th</sup> Tsukuba International Conference on Memory, Tsukuba, Japan.

Shimizu, H., Anderson, D., & Takahashi M. (2006). *Comparisons of autobiographical memories of older people and undergraduate students using the Memory Characteristic Questionnaire (MCQ)*. The 4<sup>th</sup> International Conference on Memory (ICOM-4). Sydney, Australia.

# Understanding Learning Across Formal and Informal Contexts in Japan

**Key Activities:** Understanding learning in out-of-school contexts in Japan in support of better education with Japanese partners from *Department of Science, Iwate University, Japan*,

#### Referred Journals and Proceedings

Anderson, D., & Nashon, S. (2005). Predators of knowledge construction: Interpreting students' metacognition in an Amusement Park Physics program. *Proceedings of the 2005 National Association for Research in Science Teaching Annual Meeting (NARST)*. Dallas, TX. USA. pp. 1-19 (CD of Proceedings).

Anderson, D., Nashon, S.M., & Thomas, G.P. (2009). Evolution of research methods for probing and understanding metacognition. *Research in Science Education*, 39(2),181-195.

Hisasaka, T., Anderson, D., Nashon, S., Shigematsu, K., Watanabe, E., Yagi, I., & Hatakeyama, S. (2004). Recognition of amusement park as a studying space. *Physics Education in Tohoku, 13*, 31-34.

Hisasaka, T., Anderson, D., Nashon, S., & Yagi, I. (2005). Research regarding children's metacognition in physics learning environments: Using cognitive psychology to improve physics education. *Physics Education in Tohoku, 14,* 69-74.

Hisasaka, T., Anderson, D., Nashon, S., & Yagi, I. (2004). Learning outcomes of physics experimental learning in amusement parks (II). *Proceedings of the 43<sup>nd</sup> Conference of Association of Physics Education – Japan (North Eastern Branch)* Fukushima, Japan. pp16.

Hisasaka, T., Anderson, D., Nashon, S., Hatakeyama, S., & Yagi, I. (2003). Learning outcomes of physics experimental learning in amusement parks. *Proceedings of the 42<sup>nd</sup> Conference of Association of Physics Education – Japan (North Eastern Branch)* Fukushima, Japan. pp. 8-12.

Nashon, S., Anderson, D., & Nielsen, W. (2009). An instructional challenge through problem solving for physics teacher candidates. *Asia-Pacific Forum on Science Learning and Teaching*, 10(1),1-21.

## Refereed Conference Papers

Anderson, D., & Nashon, S. (2005). *Predators of knowledge construction: Interpreting students' metacognition in an Amusement Park Physics program.* Paper presented at the 2005 National Association for Research in Science Teaching Annual Meeting (NARST). Dallas, TX. USA.

Anderson, D., & Nashon, S. (2005). *Interpreting students' metacognition from experiences in an amusement park physics program.* Paper presented at the 2005 Annual Meeting of the American Educational Research Association (AERA). Montreal, QB. Canada.

## Keynote and Invited addresses

Anderson, D., (2012). Key concept of museology and museum education in the future. Keynote address. Think of Museum Theory Special Conference of the Japanese Association of Museums. Tokyo, Japan.

Anderson, D. (2011). Understanding the nature of visitor learning and impact from museums and cultural institutions. Invited Address to the Kyoto Peace Museum. Kyoto, Japan.

Anderson, D. (2011). University partnerships in support of educational reforms in the museum field. Invited Address to the Science Communication Society of Japan. Kyoto, Japan.

Anderson, D. (2010). Accessing research in museum educator's professional practice. Invited Address to the Lower Mainland Museum Educators (LMME) group - The Japanese Canadian National Museum. Burnaby, BC, Canada.

## **Awards**

The UBC- Ritsumeikan Academic Exchange Fellowship Award	UBC- Ritsumeikan University, Japan	Exchange Fellowship Award	01/04/11 to 15/08/11	\$5,000 CAD
The Japan Foundation Research Fellowship Award	The Japan Foundation	Academic Research Fellowship	01/01/09 to 31/06/09	3,000,000 JPY
Universitas 21 Research Fellowship Award	Universitas 21	Research Fellowship	01/12/07	\$5,000 CAD