

## **Hsueh-Hua (Shay Wa) Chuang**

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National Sun Yat-sen University, Taiwan  
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### **EDUCATION**

#### **Iowa State University (Ames, Iowa)**

**Ph.D., Curriculum and Instructional Technology, May 2004**

- ❖ Concentrations: Technology and Teacher Education; Faculty Technology Professional Development
- ❖ Dissertation: *Sustainable faculty development: Issues in technology for teacher education*
- ❖ Dissertation directed by Professor Ann Thompson

#### **State University of New York at Albany (Albany, New York)**

**M. S., Curriculum and Instructional Technology, December 1994**

#### **National Kaohsiung Normal University (Kaohsiung, Taiwan)**

**B. A., English, July 1991**

### **TEACHING AND RESEARCH INTERESTS**

#### **Teaching Interests**

- ❖ Instructional technology, K-12 technology integration, Faculty Technology Professional Development, Multimedia Learning,

#### **Research Interests**

- ❖ Technology adoption in schools, Technological Pedagogical Content Knowledge, Multimedia Learning

## AWARDS AND HONORS

- ❖ **Top 20% satisfaction curriculum**  
Qualitative Research selected as the best teaching satisfaction within Social Science College, National Sun Yat-sen University
- ❖ **Senior Fulbright Research Grants Recipient, 2016-2017**
- ❖ **Distinguished Professor (Teaching), 2015 Aug – 2016 July**  
National Sun Yat-sen University
- ❖ **Outstanding Teaching Award, 2015**  
National Sun Yat-sen University
- ❖ **Teaching Excellence Award, 2013-2015**  
National Sun Yat-sen University, Five Semesters
- ❖ **Research Excellence Award, 2011- 2017**  
National Sun Yat-sen University  
Four consecutive year research excellence award recipient
- ❖ **Research Abroad Award , 2010 Feb-2010 July, 2014, 2016 July-2017 May**
- ❖ Conducted Digital Storytelling and Scientific Imagination research at College of Education and Human Development (CEHD) centers, University of Minnesota USA (2016 July-2017 May)  
Sponsored by National Science Council (renamed Ministry of Science and Technology in 2014)  
Conducted TPACK research at Center for Technology in Learning and Teaching, Iowa State University USA (2010 Feb-2010 July)
- ❖ **Young Scholar Award, 2006**  
National Sun Yat-sen University, College of Social Sciences  
Selected as the young scholar award recipient
- ❖ **Dissertation Research Excellence Award, 2004**  
Iowa State University
- ❖ **Future Faculty Fellowship, 2002-2003**  
Iowa State University, College of Education  
Selected as a Dean's Scholar

## OUTSTANDING PUBLIC SERVICES

- ❖ Educational Policy Consultant, Compulsory Education Advisory Group of the Kaohsiung Municipal Department of Education, Kaohsiung Education Bureau, 2014-2015
- ❖ Presenter of TERA (Taiwan Education Research Association) to bid 2016

International Conference of APERA (the Asia Pacific Educational Research Association) successfully, 2014

- ❖ Member of Council of TERA (Taiwan Education Research Association), 2011-2015
- ❖ Secretary General of TERA (Taiwan Education Research Association), 2009-2011
- ❖ Deputy Executive Officer of TICE (TERA International Conference on Education), 2011
- ❖ Organizing Committee Member of World Research Association (WERA) Focal Meeting, 2011
- ❖ Member of Council Meeting of WERA (World Education Research Association) in Vienna, 2009

### **OTHER ACADEMIC EXPERIENCES**

- ❖ **SSCI journal reviewers**

Interactive Learning Environments  
Computer Assisted Language Learning  
Computers & Education

- ❖ **SITE program reviewer and committee**

Program committee of SITE (Society of Information Technology for Teacher Education), 2008-2009  
Program reviewer of SITE (Society of Information Technology for Teacher Education), 2008-2010

- ❖ **GCCCE**

Program reviewer on the Agenda of Technology Enhanced Language Learning of 18<sup>th</sup> GCCCE (Global Chinese Conference on Computers in Education), 2014

- ❖ **Keynote with Dr. Ann Thompson and Dr. Evrim Baran**

Keynote Speech on ICITS (International Computer and Instructional Technologies Symposium) of SITE (Society of Information Technology for Teacher Education), Konya, Turkey, 2010

## PUBLICATIONS

*Refereed Journal Articles (In English)*

- Chuang, H.-H.\***, Weng, C.-Y., & Chen, C.-H. (2016). Which students benefit most from a flipped classroom approach to language learning? *British Journal of Education Technology*, 1-13. doi:10.1111/bjet.12530 **【SSCI ; 2015 JCR Social Science Edition , Impact Factor : 1.633 , Rank : 38/231 , Q1】**
- Chuang, H.-H.\*** (2016). Leveraging CRT awareness in creating web-based projects through use of online collaborative learning for pre-service teachers. *Educational Technology Research and Development*, 64 (4), 857–876. doi:10.1007/s11423-016-9438-5 **【SSCI ; 2015 JCR Social Science Edition , Impact Factor : 1.171 , Rank : 75/231 , Q2】**
- Chiang, C.-H., Hsu, W.-C., & **Chuang, H.-H.\*** (2016). Development and implementation of a collective teacher efficacy scale among elementary school homeroom teachers. *US-China Education Review B*, 6(2), 99-109. doi:10.17265/2161-6248/2016.02.003 **【本人為通訊作者】**
- Chuang, H.-H.\***, Weng, C.-Y., & Huang, F.-C. (2015/8). A structure equation model among factors of teachers' technology integration practice and their TPACK. *Computers & Education*, 86, 182-191. doi:10.1016/j.compedu.2015.03.016
- Hsu, W.-C., Chiang, C.-H., & **Chuang, H.-H.\*** (2015/4). Factors affecting retirement attitude among elementary school teachers. *Educational Gerontology*. doi: 10.1080/03601277.2015.1024501
- Shih, C.-L., & **Chuang, H.-H.\*** (2013). The development and validation of an instrument for assessing college students' perceptions of faculty knowledge in technology-supported class environments. *Computers & Education*, 63, 109-118.
- Chuang, H.-H.** (2013). A case study of e-tutors' teaching practice: Does technology drive pedagogy? *International Journal of Education in Mathematics, Science and Technology*, 1(2), 75-82.
- Chuang, H.-H.\***, Huang, C.-J., & Liu, H.-C (2012). The development and implementation of learning theory-based English as a Foreign Language (EFL) online e-tutoring platform. *Advanced Information Technology in Education*, 126, 71-76.
- Chuang, H.-H.\***, & Liu, H.-C. (2012). Effects of different multimedia presentations on viewers' information-processing activities measured by eyetracking technology. *Journal of Science Education and Technology*, 21(2). 276-286.
- Liu, H.-C., Chen, C.-J., **Chuang, H.-H.**, & Huang, C.-J (2012). Using eyetracking technology to investigate the impact of different types of advance organizers on

- viewers' reading of web-based content: A pilot study. *Advanced Information Technology in Education*, 126, 63-69.
- Baran, E., **Chuang, H.-H.**, & Thompson, A. (2011). TPACK: An emerging research and development tool for teacher educators. *The Turkish Online Journal of Educational Technology*, 10(4), 370-377.
- Chuang, H.-H.** \*, & Ho, C.-J. (2011). An investigation of early childhood teachers' technological pedagogical content knowledge (TPACK) in Taiwan. *Journal of Kirsehir Education Faculty*, 12, 99-117.
- Liu, H.-C., & **Chuang, H.-H.**\* (2011a). Investigation of the impact of two verbal instruction formats and prior knowledge on student learning in a simulation based learning environment. *Interactive Learning Environments*, 19(4), 433-446.
- Liu, H.-C., & **Chuang, H.-H.**\* (2011b). An examination of cognitive processing of multimedia information based on viewers' eye movements. *Interactive Learning Environments*, 19(5), 503-517.
- Liu, H.-C., Lai, M.-L., & **Chuang, H.-H.** (2011c). Using eye-tracking technology to investigate the redundant effect of multimedia web pages on viewers' cognitive processes. *Computers in Human Behavior*, 27(6), 2410-2417.
- Chuang, H.-H.**\* (2010). Weblog-based electronic portfolios for student teachers in Taiwan. *Educational Technology Research & Development (ETR&D)*, 58(2), 211-227.
- Chuang, H.-H.**\*, & Shih, C-L. (2009). Design and implementation of a model for using blogs in a writing class for schoolchildren. *International Journal of Instructional Technology & Distance Learning*, 6(10), 41-46.
- Chuang, H.-H.**, Yang, Y.-F., & Liu, H.-C. (2009). What Digital Divide Factors Matter in the Motivation to Use Technology to Learn English? A Case of Low SES Young Learners in Taiwan. *Advanced Distance Education Technologies*, 2009, 721-725.
- Yang, M.-L., **Chuang, H.-H.**, & Chiou, W.-B. (2009). Long-terms costs of inflated self-estimate on academic performance among adolescent students: A case of second-language achievements. *Psychological Reports*, 105, 1-11.
- Chuang, H.-H.**\* (2008). Perspectives and issues of the creation for weblog-based electronic portfolios in teacher education. *British Journal of Educational Technology*, 39(1), 170-174.
- Rosenbusch, M. H., & **Chuang, H.-H.** (2007). Action research on a technology integrated elementary school foreign language methods course. *Learning Languages in a Digital World, CSC 2007*, 89-113.
- Chuang, H.-H.**\*, & Thompson, A. (2005/2006) Students teaching teachers: Effect technology professional development. *Educational Leadership*. 63(4), 70-71.

- Chuang, H.-H.\***, & Rosenbusch, M. H. (2005) Use of digital technology in an elementary school foreign language methods course. *British Journal of Educational Technology*, 36(5), 869-880.
- Chuang, H.-H.\***, Thompson, A., & Schmidt, D. (2003). Faculty Technology Mentoring Program: Major trends in the literature. *Journal of Computing in Teacher Education*, 19(4), 101-106.

### ***Refereed Journal Articles (In Chinese)***

- Chuang, H.-H.\***, Huang, C.-J., & Chiang, C.-H. (2014). Understanding factors regarding elementary school teachers' professional development: A social cognition perspective [從社會認知理論的觀點探討教師參與教師專業發展評鑑之因素]. *Educational Resources and Research*, 115, 223-252.
- Lin, C.-L., Huang, T.-C., **Chuang, H.-H.**, & Chao, D. (2013). The development of an extended CIPP curriculum evaluation model using in High Scope Program-A case of high school robot curriculum [發展一延伸性 CIPP 課程評鑑模式運用於高瞻計畫課程—以高中機器人課程為例]. *Chinese Journal of Science Education*, 21(3), 237-261.
- Chiang, C.-H., & **Chuang, H.-H.\***(2013).The study of elementary school teachers' perspectives on teacher professional development and evaluation [國小教師參與教師專業發展評鑑之感受]. *Journal of Teacher Education and Professional Development*, 6(1), 81-102.
- Chuang, H.-H.\***, & Huang, C.-J. (2012). The development of media literacy and its application in K-12 curriculum and instruction [媒體識讀教育的發展及在中小學課程與教學的應用]. *Curriculum & Instruction Quarterly*, 15(1), 35-66.
- Chuang, H.-H.\***, Huang, C.-J., Liu, H.-C., & Hsieh, T.-H. (2010). A study on the development of weblog-based e-Portfolio systems for the supervision of student teachers [應用部落格發展電子歷程檔案系統之研究—以師資培育的教育實習輔導為例]. *Chung Cheng Educational Studies*, 9(2), 51-88.
- Cheng, Y.-Y., Chuang, H.-H., & Yen, C.-L. (2008). Uncovering the secrete veil of creative teaching materials [揭開創意教材的神秘面紗]. *Journal of National Taiwan Normal University: Science Education*, 53(1), 34-42.

### ***Books and Book Chapters***

- Thompson, A. D., **Chuang, H. H.**, & Sahin, I. (Eds.) (2007). *Faculty mentoring: The power of students in developing technology expertise*. Charlotte, NC: Information Age.

- Chuang, H. H.** (2007). Making connections: An international student perspective. In A. Thompson, H.-H. Chuang, & I. Sahin (Eds.), *Faculty mentoring: The power of students in developing technology expertise* (pp. 59-69). Charlotte, NC: Information Age.
- Chuang, H. H., & Schmidt, D.** (2007). Faculty mentoring programs: Major trends in the literature. In A. Thompson, H.-H. Chuang, & I. Sahin (Eds.), *Faculty mentoring: The power of students in developing technology expertise* (pp. 29-46). Charlotte, NC: Information Age.

### ***Conference Presentations/Papers***

- Chen, C.-H., & **Chuang, H.-H.** (2016, April). *The design of a flipped language learning environment (Flip2Learn) to enhance college students' L2 vocabulary acquisition*. Paper presented at the 2016 Annual Meeting sessions for the American Educational Research Association, Washington D.C., USA.
- Liu, H.-C., & **Chuang, H.-H.** (2016, April). *An investigation on how cognitive style affected multimedia learners' visual search patterns and learning outcomes*. Paper presented at the 2016 Annual Meeting sessions for the American Educational Research Association, Washington D.C., USA.
- Chuang, H.-H.** (2015, March). *High School Students' Perception to Teachers' Knowledge*. Paper presented at the 26th Society for Information Technology & Teacher Education (SITE) International Conference, Las Vegas, Nevada, USA. MOST 102-2511-S-110-004-MY2.
- Chuang, H.-H., & Liu, H.-C.** (2014, May). *TPACK-in-Action: Preparing preservice English teachers to develop TPACK proficiency*. Paper presented at the 18th Global Chinese Conference on Computers in Education (GCCCE 2014), Shanghai. MOST 102-2511-S-110-004-MY2.
- Chuang, H.-H.** (2013, June). *How teachers of different subject domains perceive their TPACK: An integrative TPACK perspective*. Paper presented at the 1st International Instructional Technologies & Teacher Education Symposium, Trabzon, Turkey. NSC 101-2511-S-110-004.
- Chuang, H.-H., Shein P.-C, Chou, Pei-I, Huang, T.-C.** (2012, December). *A CRT TPACK Model for Preservice Teacher*. Paper presented at the APERA (Asia Pacific Education Research Association) Annual Meeting, Sydney, Australia. NSC 100-2511-S-110-006.
- Tai, S.-J. & **Chuang, H.-H.** (2012, November). *TPACK-in-Action: An innovative model to help English teachers integrate CALL*. Paper presented at the International Conference on Computers in Education, Singapore.
- Chuang, H.-H., & Tai, H.-C.** (2012, August). *TPACK professional development model*.

- Paper presented at International Conference of Educational Innovation through Technology (EITT), Beijing, China. NSC 100-2410-H-110-040.
- Li, J.-Wei., Liu, H.-C., **Chuang, H.-H.**, & Huang, C.-J. (2012, April). *Investigating the effect of advance organizers on learners' reading of leaning content: An eyetracking exploration*. Paper presented at 2012 Annual Meeting American Educational Research Association (AERA), Vancouver, Canada.
- Liu, H.-C., **Chuang, H.-H.**, Huang, C.-J., & Chou, P.-I. (2012, April). *Using eyetracking technology to explore the effect of computer animations and redundant onscreen text on viewers' processing of multimedia learning content*. Paper presented at 2012 Annual Meeting American Educational Research Association (AERA), Vancouver, Canada.
- Chuang, H.-H.**, Shein, P.-C., Chou, Pei-I, Huang, T.-C. (2012, December). *A CRT-TPACK Model for Preservice Teacher*. Paper presented at the 2012 Annual Meeting Asia Pacific Education Research Association (APERA), Sydney, Australia. NSC 100-2511-S-110-006.
- Chuang, H.-H.**, & Ho, C.-J. (2010, September). *The development of early childhood teachers' technological pedagogical content knowledge (TPACK) in Taiwan*. Paper presented at the 4th International Computer and Instructional Technologies Symposiums, Konya, Turkey.
- Liu, H.-C., & **Chuang, H.-H.** (2010, April). *Investigation of the redundant effect of multimedia web pages on viewers' cognitive processes based on viewers' eye movements*. Paper presented at the 2010 Annual Meeting American Educational Research Association (AERA), Denver, CO, USA.
- Cheng, C.-C., **Chuang, H.-H.**, & Cheng, P.-J. (2010, June). *An initial probe into the e-Mentors' teaching pattern through the perspective of TPCK: A case in EFL e-Mentors [科技學科教學知識觀點下之線上輔導教師教學模式初探-以英語線上輔導教師為例]*. Paper presented at the 14th Global Chinese Conference on Computers in Education (GCCCE 2014), Singapore.
- Chuang, H.-H.**, Yang, Y.-F., Yang, Y.-C., & Chiang, Y.-H. (2008, October). *The impact of digital divide factors on motivation in utilizing technology to learn English [數位落差對低社經地位學童使用科技學習英語動機之影響]*. Paper presented at the 2008 Taiwan Academic Network Conference, Taiwan. NSC 96-2413-H-110—005-MY3.
- Shih, C.-L., & **Chuang, H.-H.** (2008, December). *The influences of Weblog Text-image Transmission Model on writing process for elementary third graders [部落格圖文傳輸寫作模式對國小三年級學童寫作歷程的影響]*. Paper presented at the 2008 Annual Conference of Taiwan Association for Educational Communications and Technology, Taiwan.



- Chuang, H.-H.,** & Liu, H.-C. (2008, March). *The use of weblog-based portfolio in teacher education*. Paper presented at Society for Information Technology & Teacher Education (SITE) 2008, Las Vegas, Nevada, USA.
- Liu, H.-C., **Chuang, H.-H.,** & Huang, J.-L. (2008, March). *The correlation among web-based learners' self-efficacy, learning strategies and outcomes*. Paper presented at Society for Information Technology & Teacher Education (SITE) 2008, Las Vegas, Nevada, USA.
- Chuang, H.-H.,** & Liu, H.-C. (2007, April). *Development and application of weblog-based portfolio for student teachers*. Paper presented at the 2007 Annual Meeting of the American Educational Research Association, Chicago, USA. NSC94-2413-H-415-008.
- Chuang, H.-H.,** Huang, C.-J., Liu, H.-C., & Hsieh, T.-H. (2006, April). *Weblog portfolio for student teachers in reflection practice [結合網誌 (網路部落格) 的電子歷程檔案在教育實習上的應用]*. Paper presented at the 2006 Conference on Education Development in Chinese Society, Macau. NSC94-2413-H-415-008.
- Chuang, H.-H.,** & Thompson, A. (2006, April). *Student mentoring teachers: An effective professional development in facilitating faculty adoption of instructional technology*. Paper presented at the 2006 Annual Meeting of the American Educational Research Association, San Francisco, USA.
- Chuang, H.-H.,** & Thompson, A. (2004, April). *Reflecting with one exemplary technology-using teacher educator: A case study*. Paper Accepted as a Round Table by the 2004 Annual Meeting sessions for the American Educational Research Association (AERA). Special Interest Group "Technology as an Agent for Change in Teaching & Learning" (TACTL), San Diego, California, USA.
- Rosenbusch, R., & **Chuang, H.-H.** (2003, November). *Methods courses: Building student understanding through work with primary sources*. Paper presented at the 37th American Council on the Teaching of Foreign Languages (ACTFL) Annual Meeting and Exposition Philadelphia, Pennsylvania, USA.
- Chuang, H.-H.,** Thompson, A., & Schmidt, D. (2003, March). *Barriers to advanced faculty use of technology*. Paper presented at the 14th Society for Information Technology & Teacher Education, Albuquerque, New Mexico, USA.
- Thompson, A., & **Chuang, H.-H.,** (2002, March). *Inverting the paradigm: Students mentoring teachers*. Paper presented at the 13th Society for Information Technology & Teacher Education, Nashville, Tennessee, USA.
- Chuang, H.** (2002) *Faculty technology mentoring program*. Paper presented at the 13th Society for Information Technology & Teacher Education, Nashville,

**August, 2017**

Tennessee, USA. Available on line:  
<http://www.public.iastate.edu/~mstar/mentor/home.html>

**Grants awarded by National Science Council  
(Renamed Ministry of Science and Technology in 2014)**

Project	Time
1. Design and Implementation of a CRT-Based Science Education E-Learning Model	2017/8/1~ 2019/7/31
2. Digital Storytelling and Scientific Imagination Development: International Collaboration and Communication.	2016/7/1~ 2017/7/31
3. The Marine Science Education Digital Storytelling Instructional Model: An Investigation on Imagination Collaborative Learning and Attitude towards Science Learning.	2015/8/1~ 2017/7/31
4. TPACK-in-Action: Preparing Preservice Teachers to Develop TPACK Proficiency.	2013/8/1~ 2015/7/31
3. Investigating the Impact of CALL on English Teachers through TPACK Framework: Building Up an English Teacher eLearning Community.	2012/8/1~ 2013/7/31
4. Design and Implementation of a Culturally Responsive Science Education E-Learning Model.	2011/8/1~ 2012/7/31
5. A Study of Development and Implementation of Technological Pedagogical Content Knowledge (TPACK) Based Faculty Professional Development Program.	2011/8/1~ 2012/7/31
6. Investigation of Multimedia Principles in Science Learning and Design and Implementation of Science Multimedia Learning Modules for Underrepresented Learners.	2010/8/1~ 2011/7/31
7. Development and Evaluation of a Teaching English as Foreign Language E-learning System for Socio-economically Disadvantaged Elementary School Students to Encourage the Study of English and Bridge the Digital Divide.	2007/8/1~ 2010/7/31
8. Weblogs in Problem Solving Projects for High School Students.	2006/8/1~ 2007/7/31
9. Weblog Portfolio for Student Teachers in Reflection Practice.	2005/8/1~ 2006/7/31