

專任教師

張宇慧助理教授



- 職稱： 助理教授
Assistant Professor
- 學經歷： 美國明尼蘇達大學
課程與教學系學習科技組博士
Ph.D. in Learning Technologies,
Dept of Curriculum & Instruction,
University of Minnesota.
- MAIL: yhc@mail.nsysu.edu.tw
- 分機： 5883

研究領域

- 學術及教育專業專長：教師發展、教學科技創新、知識翻新、學習科學、混合研究
Teacher Education, Professional Development, Instructional Design, Technology Integration, Knowledge Building, Learning Sciences, Learning Environments, Mixed Methods Research
- 研究計畫：
 - 國科會 112 年度科普活動計畫 > 鼓勵女性投入科學
 - 專題計畫名稱: 串連科學女孩的物理思考 (112-2515-S-110-002)

歷年開課名稱

- 研究所課程（全英語授課）
 - 學習科學:理論與實踐 Learning Sciences: Theory and Practice
 - 科技融入學習環境研究 Current Issues in Technology Enhanced Learning Environments
 - 雙語多樣態教學研究 Mapping Multiple Knowledge Dimensions in Multimodal and Multilingual Education (co-teach with Dr. Hsueh-Hua Chuang and Dr. Dale Albanese)
- 教育學程課程
 - 教育概論（雙語）、教學原理（雙語）、雙語教材教法、雙語教學實習
 - 教學媒體與運用、資訊媒體素養與倫理

研究成果

●(A)期刊論文

朱玲慧、張宇慧、林倍伊（2022）。「憂鬱世代」青少年的失敗恐懼與幸福感：自我效能的中介角色。《教育與心理研究》。45卷2期，59-85。

Barksdale, S., Scharber, C., & **Chang, Y.-H.** (2022). Team Mensa: A case study of supporting middle school girls' interest in computer science through an informal learning program. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2020.1864239> [SSCI; 2020 JCR in Education & Educational Research, Impact Factor: 2.043, Rank: 159/264, Q3]

Scharber, C., & Peterson, L., **Chang, Y.-H.**, Barksdale, S., & Sivaraj, R. (2021). Possibilities in K-12 computer science education: Computing as critical literacy. *Pedagogies: An International Journal*, 16(2), 136-151. <https://doi.org/10.1080/1554480X.2021.1914055>

Ouyang, F., & **Chang, Y.-H.**, Scharber, C., Jiao, P., & Huang, T. (2020). Examining the instructor-student collaborative partnership in an online learning community course. *Instructional Science*. <https://doi.org/10.1007/s11251-020-09507-4> [SSCI; 2020 JCR in Education & Educational Research, Impact Factor: 2.62, Rank: 108/264, Q2]

Ouyang, F., & **Chang, Y.-H.** (2019). The relationships between social participatory roles and cognitive engagement levels in online discussions. *British Journal of Educational Technology*, 50(3), 1396-1414. <https://doi.org/10.1111/bjet.12647> [SSCI; 2020 JCR in Education and Educational Research, Impact Factor: 4.929, Rank: 19/264, Q1]

Chang, Y.-H., & Peterson, L. (2018). Pre-service teachers' perceptions of computational thinking. *Journal of Technology and Teacher Education*, 26(3), 353-374.

Chen, B., **Chang, Y.-H.**, Ouyang, F., & Zhou, W. (2018). Fostering student engagement in online discussion through social learning analytics. *The Internet and Higher Education*, 37, 21-30. <https://doi.org/10.1016/j.iheduc.2017.12.002> [SSCI; 2020 JCR Education and Educational Research, Impact Factor: 7.178, Rank: 5/264, Q1]

Lin, P. Y., **Chang, Y.-H.**, Lin, H. T., & Hong, H. Y. (2016). Fostering college students' creative capacity through computer-supported knowledge building. *Journal of Computers in Education*, 4(1), 43-56. <https://doi.org/10.1007/s40692-016-0063-4>

Hong, H. Y., **Chang, Y.-H.**, & Chai, C. S. (2014). Fostering a collaborative and creative climate in a college class through idea-centered knowledge-building. *Instructional Science*, 42(3), 389-407. <http://dx.doi.org/10.1007/s11251-013-9289-y> [SSCI; 2020 JCR in Education and Educational Research, Impact Factor: 2.62, Rank: 108/264, Q2]

●(B)研討會論文

張宇慧、楊仕安 (2023.05)。師資生的新媒體素養表現初探。2023 全球華人教育資訊與評估研討會。國立台中教育大學。

Chang, Y.-H. (2022). Using the ISTE Standards to Examine the Roles of Teacher and Students in Technology-Enhanced Learning Environments. In *Proceeding of 26th Global Chinese Conference on Computers in Education (GCCCE 2022)*.

Seet, C. H., **Chang, Y. H.**, Hong, H.Y. (2022). Fostering TPACK via Idea Improvement in Teacher Education. In *Proceeding of 16th International Conference of the Learning Sciences (ICLS)*. International Society of

- the Learning Sciences.
- Huang, H. S., **Chang, Y. H.**, Hong, H.Y. (2022). Developing Computational Thinking via Knowledge Building. In *Proceeding of 16th International Conference of the Learning Sciences (ICLS)*. International Society of the Learning Sciences.
- Chen, B., **Chang, Y.-H.**, & Groos, D. (2020, November) *Crisscrossing Information Spaces with the IdeaMagnets Tool*. Paper presented at the 2020 Knowledge Building Summer Institute, Online due to COVID-19.
- Ouyang, F., **Chang, Y.-H.**, & Scharber, C. (2020). Can an Instructor and Students Build Collaborative Partnership in an Online Course? In *Proceeding of 14th International Conference of the Learning Sciences (ICLS)*. Nashville, TN: International Society of the Learning Sciences.
- Chen, B., **Chang, Y.-H.**, & Groos, D. (2020). Bridging Public Discourse and Knowledge Building Discourse in Science Classrooms with the IdeaMagnets Tool. In *Proceeding of 14th International Conference of the Learning Sciences (ICLS)*. Nashville, TN: International Society of the Learning Sciences.
- Chang, Y.-H.**, Barksdale, S., Peterson, L. & Scharber, C. (2019). Development of Girls' Interests and Identities in Computer Sciences within an CSCL Environment. In Lund, K., Niccolai, G. P., Lavoué, E., Hmelo-Silver, C., Gweon, G., & Baker, M. (Eds.), *A Wide Lens: Combining Embodied, Enactive, Extended, and Embedded Learning in Collaborative Settings, 13th International Conference on Computer Supported Collaborative Learning (CSCL) (2)*, 825-826. Lyon, France: International Society of the Learning Sciences.
- Chang, Y.H.**, & Chen, B.D. (2019, April). *Teachers as Co-designers of a Knowledge Building Environments*. Paper presented at Knowledge Building Summer Institute, Toronto, Canada.
- Scharber C., Peterson, L., **Chang, Y.H.**, Barksdale, S., Constantine, A., Sivaraj, R. & Englund, J. (2019). Computational Participation & Computer Science with Middle School Girls. In Lund, K., Niccolai, G. P., Lavoué, E., Hmelo-Silver, C., Gweon, G., and Baker, M. (Eds.), *A Wide Lens: Combining Embodied, Enactive, Extended, and Embedded Learning in Collaborative Settings, 13th International Conference on Computer Supported Collaborative Learning (CSCL) (2)*, 616-619. Lyon, France: International Society of the Learning Sciences.
- Scharber C., **Chang, Y.H.**, Barksdale, S., Peterson, L., Sivaraj, R., Constantine, A. & Englund, J. (2019). SciGirls Code: Computational Participation for Middle School Girls. In *Proceedings of the Association for Computing Machinery's Special Interest Group on Computer Science Education (SIGCSE) 2019*. <https://doi.org/10.1145/3287324.3293800>
- Chang, Y.-H.** & Peterson, L. (2018). 'It opens up a new way of thinking, but...': Implications from pre-service teachers' awareness of computational thinking. In *Proceedings of International Conference on Computational Thinking Education 2018*.
- Chang, Y.-H.** (2018). A Learning Sciences Perspective on the Development of Teachers' Digital identity. In Kay, J. & Luckin, R. (Eds.), *Rethinking Learning in the Digital Age: Making the Learning Sciences Count, 13th International Conference of the Learning Sciences (ICLS) (3)*, 1731-1732. London, UK: International Society of the Learning Sciences.
- Lin, P-Y., Ma, L., **Chang, Y.H.**, Lin, C-P. (2018). Improving Elementary Students' Literacy Through Knowledge Building. In Kay, J. & Luckin, R. (Eds.), *Rethinking Learning in the Digital Age: Making the Learning Sciences Count, 13th International Conference of the Learning Sciences (ICLS) (3)*, 1527-1528. London, UK: International Society of the Learning Sciences.

Nielsen-Winkelman, T. & **Chang, Y. H.** (2016). Decoding the Mystery of Technology Integration: Decision-Making and Identities with Elementary Pre-Service Teachers. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016* (pp. 2229-2236). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

Chang, Y.-H., Hong, H.Y., Hua, L.Y. & Hung, G.T. (2015). Fostering more self-reflective understanding of teaching knowledge in a knowledge building environment. In S. Carliner, C. Fulford & N. Ostashewski (Eds.), *Proceedings of EdMedia: World Conference on Educational Media and Technology 2015* (pp. 129-134). Association for the Advancement of Computing in Education (AACE).

Hong, H.Y., Huang, T. W., **Chang, Y. H.** & Hung, G.T. (2015). Enhancing reading comprehension through computer-supported collaborative learning. In S. Carliner, C. Fulford & N. Ostashewski (Eds.), *Proceedings of EdMedia: World Conference on Educational Media and Technology 2015* (pp. 44-46). Association for the Advancement of Computing in Education (AACE).

Chang, Y. H. & Hong, H.Y. (2011) The effects of idea-centered knowledge building on group learning. *The 15th global Chinese conference on computers in education (GCCCE)*. ISBN: 978-1-4244-9237-4. Hangzhou, China. (Excellent Paper Award of 2011).

Chang, Y. H. & Hong, H.Y. (2010). The creative power of online collaborative environment: Using Knowledge Forum as an example. In L. Dirckinck-Holmfeld, V. Hodgson, C. Jones, M. de Laat, D. McConnell, & T. Ryberg (Eds.), *A research-based conference on networked learning in higher education and lifelong learning. Proceedings of the Seventh International Conference on Networked Learning* (pp. 39-46). ISBN: 978-1-86220-2252. Aalborg, Denmark.

●(C)專書及專書論文

Hong, H.Y., & **Chang, Y.-H.** (2018). From methods to theories: Approaches to develop digital learning theories. In Sung, Y. T. (Eds), *Advanced Research Methodology for e-Learning*. ISBN: 9789862661758. Taipei, Taiwan: Edubook. [written in Traditional Chinese] 洪煌堯、張宇慧 (2018)。從方法到理論：數位學習理論的檢驗與建立。在宋曜廷(主編)，數位學習進階研究方法(頁 3-30)。高教出版社。

Lin, P. Y., **Chang, Y.-H.**, Lin, H. T., & Hong, H.Y. (2017, March). Fostering college students' creative capacity through computer-supported knowledge building activities. In M. A. Runco. (4th ed.), *Creativity and Education* (vol.3, pp. 65-78). New Delhi: SAGE Publications Ltd. (Reprinted from *Journal of Computers in Education*, 4(1), 43-56).

●(D)榮譽及獎項

Received at National Sun Yat-sen University, Taiwan.

- New Faculty Award 國立中山大學新進教師獎勵 (2022-2023)

Received at the Ministry of Education, Taiwan. 教育部 106 年公費留學獎學金 (教育學群)

- Grantee of Government Scholarship to study abroad. 2017-2019

Received at the Fulbright Program, U.S. 美國傅爾布萊特獎助學人

- Grantee of Graduate Study 2014-2016
攻讀博士學位傅爾布萊特獎助金
- Grantee of Foreign Language Teaching Assistant, FLTA, 2012-2013
教師赴美進修暨協助華語教學獎助計畫

學術與教育輔導服務

- 期刊審稿
 - Contemporary Educational Research Quarterly (Aug 2023-present)
 - Research and Practice in Technology Enhanced Learning (Aug 2023-present)
 - Educational Technology & Society (Feb 2023-present)
 - Journal of Digital Learning in Teacher Education (Nov 2022-present)
 - Computers and Education (Jan 2022-)
- 大專院校教師增能工作坊
 - 全英語教學工作坊講師 2022 - 國立中山大學、國立屏東大學、國立東華大學
 - 科技融入教學工作坊講師 2023 - University of Brawijaya, Malang, Indonesia
- 研究所研討評論/演講
 - 國立中山大學教育所專題研討 2022
 - Taiwan Education Research Association 2022
 - 國立中山大學社創所第一屆論文研討會 2022
 - 國立台南大學教育系教學科技所專題研討 2023
 - Southern Taiwan Social Sciences Research School 2023
- 師資生教學輔導
 - 師資生教育實習指導 2022-2023 - 英語科、生物科
 - 雙語教學實作計畫 2022-2023 - 鼓山高中、苓雅國中
 - 國際史懷哲計畫 2023 - 印尼瑪琅智能中學
- 雙語教學在職教師研習講師
 - 國立中山大學辦理中小學雙語教學在職教師增能學分班講師/導師 2022-2023
 - 地方教育輔導計畫 2022-2023 - 東港高中、枋寮高中
 - 高雄市立國教輔導團 2022-2023 - 中小學教師研習
 - 國高中教師校內研習 2022-2023
- 台南二中、南大附中、左營高中、苓雅國中、壽山國中
- 高中生成果講評
 - 雙語實驗班成果講評 2023 - 高雄女中與高師大附中
 - 自主學習歷程發表講評 2023 - 楠梓高中
- 國際學生英語教學輔導
 - English Language Teaching Assistant program, Co-PI in the South Center. 2022-2023