

## Interdisciplinary lecture series

# Equity Gaps in Education

The **public interdisciplinary lecture series, "Equity Gaps in Education,"** is organized by researchers from the National Taiwan Normal University and the Friedrich-Alexander University Erlangen-Nuremberg.

**National Taiwan Normal University, Taiwan:**  
Sen-Pen Eu, PhD; Ching-Chi Kuo, PhD,  
Hsiao-ping Yu, PhD

**Friedrich-Alexander University Erlangen-Nuremberg, Germany:** Michaela Gläser-Zikuda, PhD; Bettina Harder, PhD, Albert Ziegler, PhD

The symposium addresses group disparities that violate our notions of educational equity. The speakers in the lecture series are distinguished international experts from various disciplines. They represent a wide range of perspectives and theoretical concepts concerning equity gaps in education.

The symposium will start on **September 8** at 10:30 CET (Central European Time) and 16:30 (Taipei Standard Time) with the two lectures

I ***Dra. Alicia García-Holgado, Spain (10:30 CET / 16:30 TST):***

**Gender perspective and co-education in STEM programs**

II ***Prof. Shin-Jie Zheng, Taiwan (11:30 CET/17:30 TST):***

**Prevention and intervention of Reading Difficulties for Disadvantaged Children in Remote Taiwan**

Participation will be free. Please use the following zoom link:

<https://fau.zoom.us/j/63583243188?pwd=M0dGWjU3NFc3ek9STVlwUDZ3Q2Q1Zz09>

Meeting-ID: 635 8324 3188

Password: 052649

The lecture series, "Equity Gaps in Education" will continue with two more lectures on **September 22** at the same time:

III ***Prof. Margaret Sutherland & Dr. Ines Alves, United Kingdom: Teacher education for inclusion:***

**Building bridges to bridge the gaps**

IV ***Prof. Hsiao-Lan Chen, Taiwan: Constructing Learning Support for Disadvantaged Students and***

**Low Achievers: Remedial Education Policy and Practice in Taiwan**

**Alicia García-Holgado:**

**Gender Perspective and Co-education in STEM Programs**



The forthcoming future is characterized by the transformation of the industries in favour of technological skills. The new technologies will merge the physical, digital and biological worlds, impacting in all disciplines and economies. The STEM (Science, Technology, Engineering and Mathematics) careers will have a crucial role in this transformation. However, women are underrepresented in those areas. How can we shape the world for future generations? How can universities reduce this gender gap? How can we empower young women to be part of the forthcoming future? University students should receive training on equality. However, there is a lack of practical methodological guides on how to introduce these principles into teaching practices and examples of how to carry out educational activities with a gender perspective. During his presentation we will discover different mechanisms and actions to bridging the gender gap in STEM programs in Higher Education Institutions.

Alicia García-Holgado receives the degree in Computer Sciences (2011), a M.Sc. in Intelligent Systems (2013) and a Ph.D. (Cum Laude) (2018) from the University of Salamanca, Spain. She is a member of the GRIAL Research Group of the University of Salamanca since 2009. Her main research lines are related to the development of technological ecosystems for knowledge and learning processes management in heterogeneous contexts, and the gender gap in the technological and engineering areas. Noteworthy the organisation and participation in a large number of activities aimed at reducing the gender gap in STEM. She has participated as technological support, later as a researcher and performing coordination tasks in more than 50 regional, national and international research projects. She is a member of IEEE (Women in Engineering, Education Society and Computer Society), ACM (and ACM-W) and AMIT (Spanish Association for Women in Science and Technology).

**Prof. Shin-Jie Zheng**

**Prevention and intervention of Reading Difficulties for Disadvantaged Children in Remote Taiwan**



The main theme of the talk is how to implement intervention for students with reading difficulties in the most disadvantaged area in remote Taiwan. Given the distinctive orthographic features of written Chinese, the speaker will briefly introduce how Chinese reading is taught at the elementary level, and then describe the reading difficulties of poor readers we face. Based on effective teaching principles supported by literature, systematic remedial Chinese reading materials for students in elementary schools have been developed and their effects were examined by our team at NTNU. We also developed comic strip readers for remedial Chinese reading instruction. The results of an experiment showed that, for students with high reading ability, reading with or without comic strips made no difference. For students with medium and low reading abilities, however, a significantly better comprehension score was achieved when they read stories with comic strips. In sum, our findings show that, reading difficulties can be prevented. Once reading difficulty occurs, most cases can be remedied. Implications, issues to be explored are also discussed.

Professor Tzeng is a scientific researcher of reading. His research interests include Chinese reading process, reading difficulties, dyslexia, and remedial instruction. His university is located in the most disadvantaged area in Taiwan where the language and culture are diverse, the per capita income is the lowest, and the academic achievement of students is also the last among the counties and cities. For years, Tzeng and his colleagues has developed remedial instruction materials in an effort to enhance low-achieving students' reading performance. As shown in his journal articles, chapters, and books, Tzeng repeatedly demonstrates that quality reading instruction and learning materials make a difference. He always dreams of developing a plenty of easy-to-use, systematic, and evidence-based teaching materials for teachers. Tzeng is enthusiastic about participating in the academic community and had chaired the Taiwan Academy of Learning Disabilities, Taiwan Reading Association, and the Special Education Association.