



NATIONAL TAIWAN NORMAL UNIVERSITY

Featured Research Newsletter

ISSUE 07 | SPRING 2025



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Feature News

SEED Introduction

The International Taiwan Studies Center at NTNU: A Global Hub for Taiwan-Focused Research

In 2023, National Taiwan Normal University (NTNU)—a globally recognized leader in education research, consistently ranked among the top universities worldwide for education studies (#7 in U.S. News Best Global Universities, #27 in QS World University Rankings, #38 in THE World University Rankings)—established the Social Emotional Education and Development Center (SEED) with support from the Ministry of Education. As a college-level research hub, SEED aligns with international trends in social-emotional learning (SEL) while addressing the mental and physical well-being of students and educators. The center builds on NTNU's pioneering work in SEL, integrating expertise across educational psychology, science and engineering, sports and leisure studies, technology, and teacher training to develop evidence-based curricula tailored to Taiwan's educational landscape.

A Distinctive Approach: Integrating Eastern Wisdom with SEL

What sets SEED apart from other SEL research centers worldwide is its unique fusion of Eastern philosophies—Confucianism, Taoism, and Buddhism—with contemporary SEL frameworks. This integration extends beyond theory to practical applications, incorporating mindfulness, Zen principles, and classical texts into SEL interventions. By drawing from Taiwan's rich cultural and philosophical heritage, SEED fosters culturally responsive SEL strategies that resonate with the lived experiences of learners in East Asian contexts.

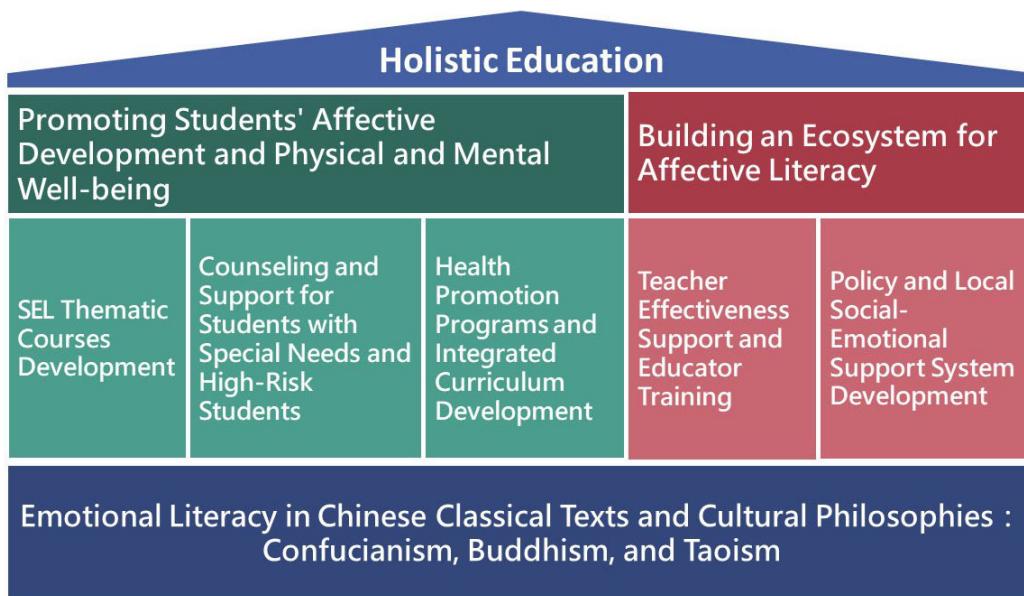


Figure 1. Building blocks of the SEED Center.

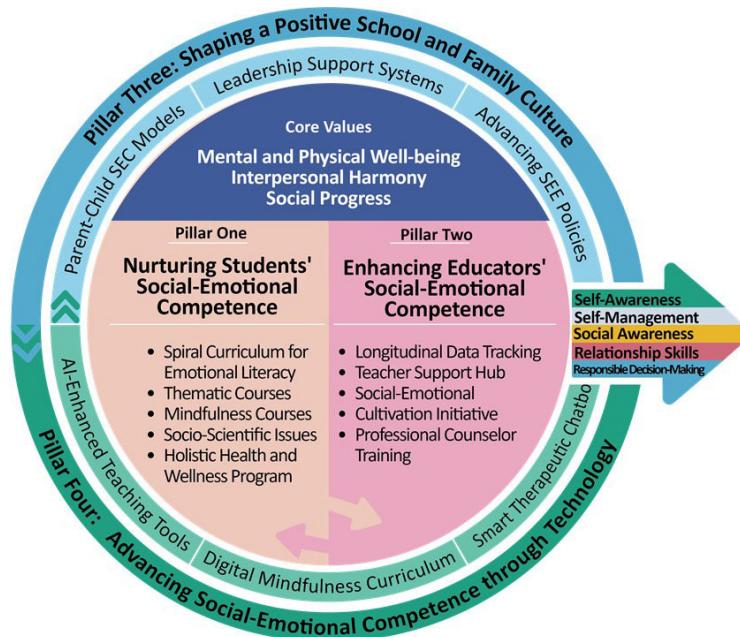


Figure 2. The Four Pillars Vision of SEED Center.

Vision and Achievements

From 2023 to 2028, SEED is committed to strengthening Taiwan's educational reform for students and teachers while progressively expanding into community engagement and technological innovation. With a rapidly growing team of 28 distinguished researchers, SEED has already made significant strides:

- 99 Scopus-indexed journal publications (2022–2024) with 1,800+ citations
- Five published textbooks (four more in press)
- 120+ empowerment events
- 800+ teachers trained in SEL implementation



Cultural Insights Shaping SEL

SEED's exploration of Eastern cultural influences extends beyond the widely studied Confucian traditions, incorporating deeper engagements with Taoism and Buddhism to refine SEL interventions. Recent collaborations include:

- A forum with Chung Tai Chan Monastery, the world's largest Buddhist Zen monastery, exploring how traditional mindfulness and emotion regulation techniques can enhance SEL.
- A dialogue with Dr. Fong-Mao Lee, Academia Sinica academician and Taoist priest, analyzing the cultural psychology of Taiwanese society and how deeply rooted Taoist beliefs about order, security, and emotional responses shape SEL implementation.



Figure 3. Forum with the Chung Tai Chan Monastery.



Figure 4. Forum with Dr. Fong-Mao Lee, a scholar and Taoist priest.

For more information about the SEED team and their groundbreaking work, visit their [official team page](#).

Cover Story

Fostering Social-Emotional Learning Through Humor: Dr. Hsueh-Chih Chen's Research Innovations



Dr. Hsueh-Chih Chen, Chief Director of the SEED Center at National Taiwan Normal University, is a leading scholar in educational psychology and a pioneer in social-emotional learning (SEL). Currently a Chair Professor in NTNU's Department of Educational Psychology and Counseling, Dr. Chen also serves as the Editor-in-Chief of the Journal of Research in Educational Science and Bulletin of Educational Psychology, both SCOPUS-indexed journals. His extensive academic leadership includes serving as Dean of the College of Education, Director of the Center for Teaching and Learning Development, and Chair of multiple professional associations in psychology and education.

With over 220 journal publications, 42 books and monographs, and more than 300 conference papers, Dr. Chen's contributions to SEL, humor studies, creativity, cognition, and positive psychology have earned him prestigious awards, including the National Science and Technology Council's Outstanding Research Award (2014, 2023) and the Ministry of Education's National Excellent Teacher Award (2023).

Transforming SEL Through Humor

Dr. Chen's groundbreaking research explores humor as a vital tool for social-emotional education, revealing its ability to enhance student engagement, emotional resilience, and classroom dynamics. His studies show that humor-based interventions not only foster positive emotions but also improve language skills and social interactions, creating a supportive SEL environment.

Recent research led by Dr. Chen emphasizes the role of humor in teacher-student relationships. Mismatched humor styles—particularly negative humor—can hinder rapport, whereas thoughtful humor use strengthens social awareness and communication. By helping teachers understand and adapt their humor styles, Dr. Chen's work provides actionable strategies for creating SEL-friendly classrooms.

Beyond behavioral applications, Dr. Chen's research delves into the neuroscience of humor. His team has conducted pioneering fMRI studies examining humor processing, cultural differences, and gender-based variations in humor appreciation. Findings reveal:

- A four-stage model of humor processing in the brain, refining traditional incongruity-resolution

theories.

- Distinct humor-processing patterns between Taiwanese Indigenous and Han Chinese groups, highlighting cultural influences.
- Gender-based differences in humor-related brain connectivity, emphasizing the need for personalized SEL strategies.
- These insights deepen our understanding of humor's role in emotional regulation and stress management—key SEL components—and pave the way for innovative, culturally responsive SEL interventions.

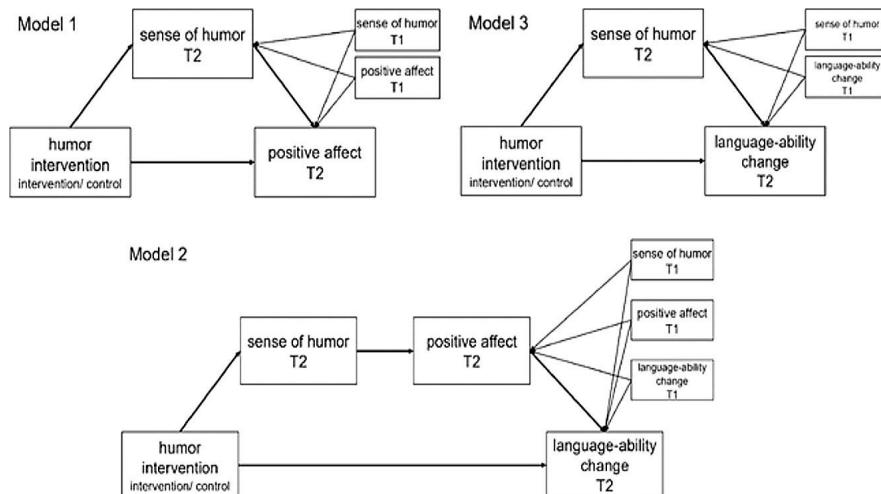


Figure 5. Models of humor intervention and positive affect.

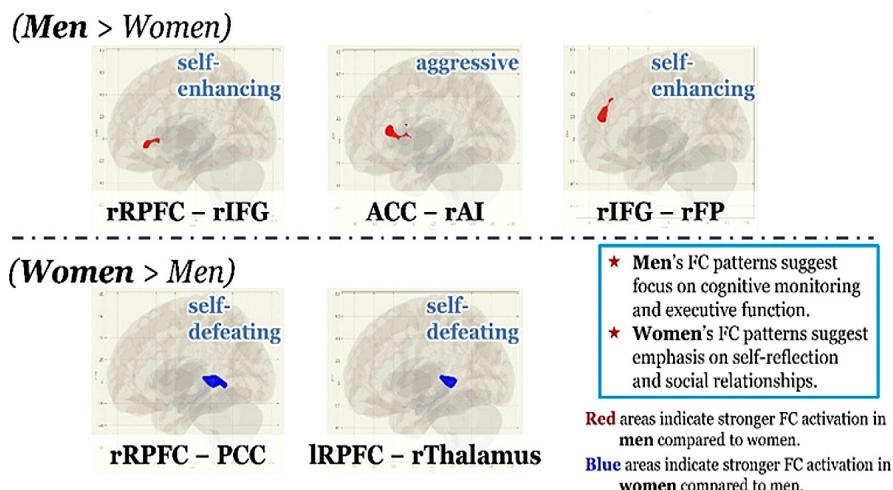


Figure 6. Functional connectivity and correlation with humor styles.

Advancing SEL Research and Practice

By integrating humor research with neuroscience and education, Dr. Chen's work bridges academic disciplines to enhance SEL pedagogy. His findings inform the development of targeted interventions, teacher training programs, and culturally sensitive SEL curricula. The SEED Center's commitment to evidence-based approaches ensures that humor is not just a teaching tool but a powerful mechanism for fostering emotional intelligence and social well-being. As Dr. Chen and

his team continue to explore the intersection of humor and SEL, their research is shaping a new paradigm in social-emotional education—one that embraces laughter as a catalyst for learning, connection, and personal growth.

Integrating Mindfulness and SEL: The Launch of MindSpring

Furthering his commitment to SEL, Dr. Chen has spearheaded the development of MindSpring: Mindfulness-Based Social-Emotional Learning (2025), a pioneering curriculum designed to enhance SEL competencies through mindfulness. As the first systematic mindfulness-integrated SEL program in Taiwan and the Chinese-speaking world, MindSpring bridges Eastern philosophical traditions with contemporary SEL frameworks.



Figure 7. Cover page of MindSpring series book 1.

Comprising 26 structured learning activities, MindSpring cultivates self-awareness, self-management, social awareness, relationship skills, and responsible decision-making through mindfulness techniques. This innovative approach leverages mindfulness as a foundation for attention training and emotional regulation, seamlessly integrating these skills into a broader SEL framework. By intertwining mindfulness with evidence-based SEL strategies, MindSpring provides educators with a comprehensive guide to fostering emotionally intelligent and socially engaged learners. This book marks the first installment in an ongoing series dedicated to advancing mindfulness-integrated SEL, with future volumes already in development.

Reference:

- Chang, C. Y., Chan, Y. C., Chen, I. F., & *Chen, H. C. (2025). Sex differences in resting-state fMRI functional connectivity related to humor styles. *Biological Psychology*, 108983. Advance online publication.
- Chang, C. Y., Chan, Y. C., & *Chen, H. C. (2024). The differential processing of verbal jokes by neural substrates in indigenous and Han Chinese populations: An fMRI study. *Behavioral Brain Research*, 457, 114702.
- Chang, C.-Y., Chan, Y.-C., & *Chen, H.-C. (2023). Verification of the Four-Stage Model of Humor Processing: Evidence from an fMRI Study by Three-Element Verbal Jokes. *Brain Sciences*, 13(3), 417.
- Wu, C.-L., Huang, H.-J., Chen, P.-Z., & *Chen, H.-C. (2023). Influence of Junior High School Students' humor styles and perceptions of their class Teachers' humor Styles on Teacher-Student Interaction. *Current Psychology*, 42, 16442-16450.
- Liao, Y.-H., Lee, M.-F., Sung, Y.-T., & *Chen, H.-C. (2023). The effects of humor intervention on teenagers' sense of humor, positive emotions, and learning ability: A positive psychological perspective. *Journal of Happiness Studies*, 24, 1463-1481.

Additional News and Highlights

Research News

Can the Body Heal the Mind?

Exploring Wellbeing Through Physical Activity



Dr. Yu-Kai Chang, Distinguished Professor and Chair of the Department of Physical Education and Sport Sciences at NTNU, explores the intersection of physical activity and cognitive neuroscience. His research, using EEG, sMRI, and fMRI, investigates how exercise influences cognitive function in various populations, from athletes to individuals at risk of cognitive decline.

Exercise and Alzheimer's Risk Reduction

Dr. Chang's latest study in Journals of Gerontology, Series A reveals that a single session of exercise enhances cognitive performance, regardless of intensity or genetic risk (APOE ε4) for Alzheimer's disease. These findings support exercise as a universal strategy for cognitive health.

Meta-Analysis on Exercise and Depression

A recent meta-analysis in the International Journal of Clinical and Health Psychology synthesized data from 12 trials with 945 adults with major depressive disorder. The study confirmed that aerobic exercise significantly improves memory and executive function, especially when combined with antidepressants. It also identified optimal exercise parameters—moderate-to-vigorous intensity, three times weekly, for up to 12 weeks—offering evidence-based guidelines for mental health interventions.

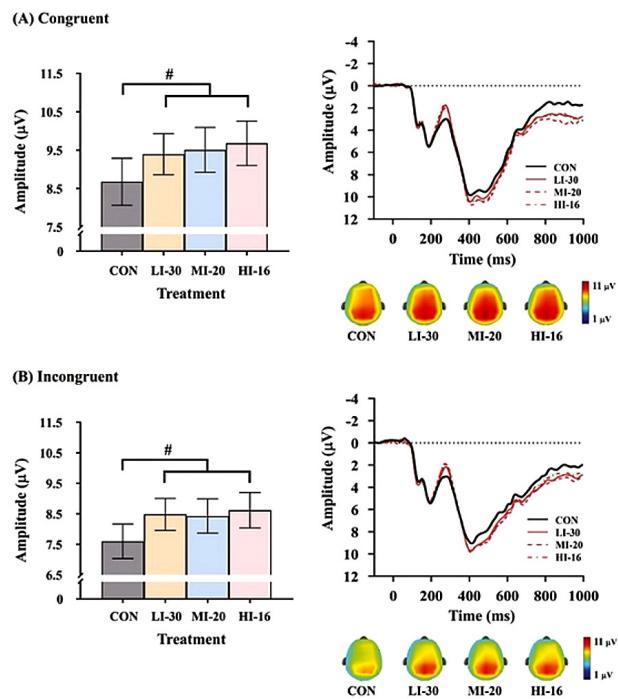


Figure 8. Neuro-electrical index presented for both APOE ε4 carriers and noncarriers for Stroop task as a function of treatment.

Dr. Chang's groundbreaking work underscores the potential of exercise in cognitive enhancement and mental health, paving the way for practical, science-backed interventions.

Reference:

- Chang, Y. K., Etnier, J. L., Li, R. H., Ren, F. F., Ai, J. Y., & Chu, C. H. (2024). Acute Exercise Effect on Neurocognitive Function Among Cognitively Normal Late-Middle-Aged Adults With/Without Genetic Risk of AD: The Moderating Role of Exercise Volume and APOE Genotype. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, 79(2), glad179.
- Ren, F. F., Hillman, C. H., Wang, W. G., Li, R. H., Zhou, W. S., Liang, W. M., Yang, Y., Chen, F. T., & Chang, Y. K. (2024). Effects of aerobic exercise on cognitive function in adults with major depressive disorder: A systematic review and meta-analysis. *International Journal of Clinical and Health Psychology*, 24(2), 100447.

Research News

Navigating Conflict in Groups: Insights for Social-Emotional Learning



Dr. Li-Fei Wang, Distinguished Professor at NTNU's Department of Educational Psychology and Counseling, explores emotional regulation and group counseling through a culturally relevant "Emotional Cultivation Model" (DER). Her research demonstrates that this model enhances emotional stability, social adaptability, and well-being in children and adolescents.

Optimizing Group Dynamics for Emotional Growth

In a recent study published in *Group Dynamics: Theory, Research, and Practice*, Dr. Wang and collaborators analyzed 37 Taiwanese adolescent counseling groups using the BEAR intervention. They identified three group development patterns, with the “ideal” pattern—marked by increasing engagement and a low-high-low conflict trajectory—leading to the most positive emotional outcomes.

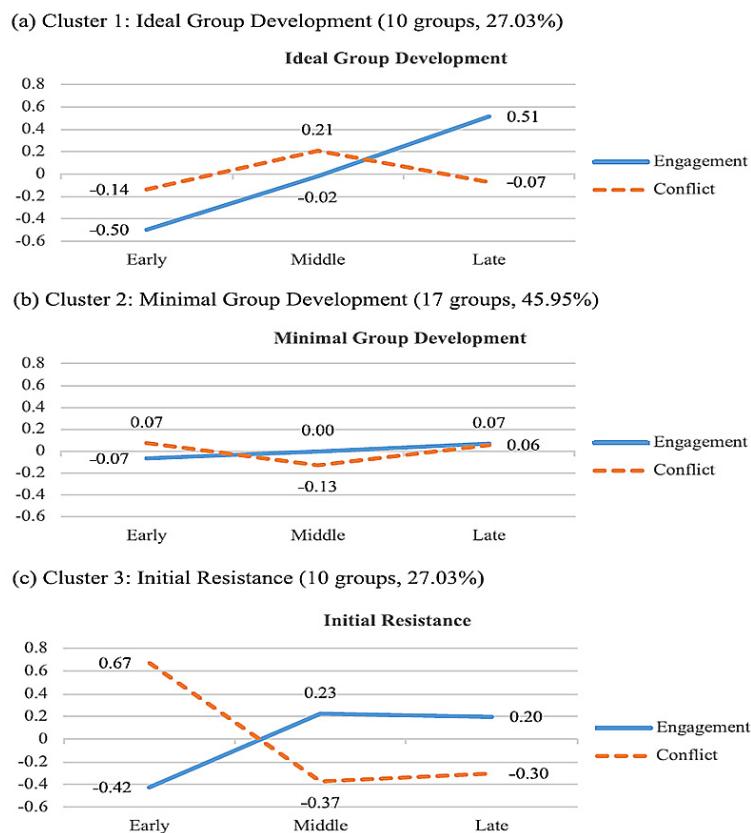


Figure 9. Patterns of group development derived from a cluster analysis of group centered engagement and conflict series.

This research highlights the importance of adaptive leadership in SEL and group counseling, emphasizing how managing engagement and conflict can optimize group dynamics. The findings also underscore the value of culturally informed SEL approaches, reinforcing the SEED Center's commitment to integrating multicultural perspectives into emotional development strategies.

Reference:

Kivlighan, D. M., Jr., Wang, L.-f., Wei, M., Koay, E. Y. Y., Hung, Y.-L., & Kivlighan, M. (2024). *Patterns and levels of engagement and conflict development and member outcome in adolescent counseling groups. Group Dynamics: Theory, Research, and Practice*, 28(4), 325–341.

Research News

Enhancing Social-Emotional Learning for Students with Special Needs



Dr. Huei-Mei Liu, Chair of NTNU's Department of Special Education, is advancing research on language development and executive functions (EFs) in children with disabilities. Her recent study in *Reading and Writing* explores how EFs—particularly inhibition and verbal working memory—affect reading comprehension in Chinese-speaking children with ADHD.

Findings reveal that while language skills are critical for all learners, children with ADHD rely more on inhibition and working memory for reading success. This research underscores

the need for targeted interventions that strengthen these cognitive functions, with potential benefits extending to social-emotional learning (SEL). By integrating EF-focused strategies, SEL programs can better support self-regulation and adaptive learning for students with diverse needs.

Step	Independent variable	TD group (<i>n</i> =36)				ADHD group (<i>n</i> =33)			
		Dependent variable: Reading comprehension				Dependent variable: Reading comprehension			
		β	<i>t</i> value	Total R^2	ΔR^2	β	<i>t</i> value	Total R^2	ΔR^2
1: Controlling factors									
	Age	0.224	1.775			0.036	0.272		
	Gender	0.196	1.548			0.040	0.325		
	Nonverbal IQ: WISC	0.366	2.855**			0.148	0.984		
	Matrix reasoning standard score			.					
2: Language skills (stepwise)									
	Listening comprehension z score	–	–			0.454	3.382**	0.442	0.218***
	Verbal reasoning: WISC	0.471	3.774***	0.506	0.216***	–	–		
	Similarities standard score								
3: EF components (stepwise)									
	Inhibition: response error to the NOGO trial in Go/nogo task	–	–			-0.317	-2.441*	0.514	0.078*
	Shifting: shift in WCST	0.270	2.186*	0.559	0.060*	–	–		
	Planning: moves in ToL	–	–			–	–		
	Spatial WM: Between-search errors in SWM	–	–			–	–		
	Auditory WM: WISC digit span standard score	–	–			0.291	2.084	0.567	0.059*

Note: – variable excluded in the stepwise regression model; Adjusted R^2 used; * $p<.05$, ** $p<.01$, *** $p<.001$

Figure 10. Hierarchical regression model for reading comprehension for typically developing (TD) and attention-deficit/hyperactivity disorder (ADHD) groups.

Reference:

- Chen, Y., Tsao, F.-M., Liu, H.-M., & Huang, Y.-J. (2022). Distinctive patterns of language and executive functions contributing to reading development in Chinese-speaking children with ADHD. *Reading and Writing*, 37, 1011-1034.

Engagement News

Eastern Wisdom and Emotional Education: A Global Dialogue

On November 29, 2024, the SEED Center hosted the International Conference on Traditional Texts and Emotional Cultivation, bringing together scholars and practitioners to explore the integration of Eastern wisdom into modern emotional education. The event featured a keynote by Dr. Chun-Chieh Huang of NTU and presentations from experts across the US, South Korea, and Japan, fostering a rich cross-cultural exchange.

With over 100 participants, discussions spanned classical literature, Confucian thought, and comparative Eastern-Western perspectives, highlighting ways traditional texts can inform SEL practices. This conference reaffirmed SEED's commitment to bridging ancient wisdom with contemporary emotional learning, paving the way for more holistic and culturally responsive education.



Figure 11. International conference on traditional texts and emotional cultivation.

Engagement News

Advancing Global Learning Sciences: CLTC, IRELS, and HNUE Co-Host 10th IWALS in Hanoi

From December 14 to 15, 2024, the Chinese Language and Technology Center (CLTC) and the Institute for Research Excellence in Learning Sciences (IRELS) of National Taiwan Normal University, in collaboration with Hanoi National University of Education (HNUE), co-hosted the 10th International Workshop on Advanced Learning Sciences (IWALS) in Hanoi, Vietnam. This milestone event brought together over 100 participants, including scholars from the United States, the United Kingdom, Japan, Indonesia, the Philippines, Vietnam, and Israel, showcasing the institutions' leadership in advancing global learning sciences.

Under the theme "Transitions in Learning Sciences and Technology," the workshop featured five keynote speeches, 61 paper presentations, and 45 poster sessions. In his opening remarks, Vice President Yao-Ting Sung emphasized the importance of IWALS in fostering global knowledge exchange since its inception in 2013. He highlighted the collaborative efforts of CLTC, IRELS, and HNUE in integrating technology and linguistics to promote equity and innovation in education.

The event also served as a platform for strategic dialogue between NTNU and HNUE. Discussions focused on:

1. **Student Exchange Programs** through credit recognition and dual-degree opportunities.
2. **Faculty Collaboration** in hybrid teaching models and professional training.
3. **Research Partnerships** involving joint conferences, co-authored publications, and academic resource development.

The successful hosting of the 10th IWALS by CLTC, IRELS, and HNUE underscores their commitment to global academic collaboration and their pivotal role in shaping the future of learning sciences through innovative research and partnerships.



Figure 12. Group photo of IWALS 2024 participants.

Upcoming Events

The 1st International Conference on Education for Middle-Aged and Older Adults 2025

2025第一屆中高齡教育國際研討會

**The 1st International Conference on Education for
Middle-Aged and Older Adults 2025**

The "The 1st International Conference on Education for Middle-Aged and Older Adults 2025: Designing Tailored Quality Education for Middle-Aged and Older Adults" will take place from March 14 to 15, 2025, at National Taiwan Normal University (NTNU) in Taipei, Taiwan. This conference aims to deepen international collaboration in educational research, highlight cutting-edge advancements, and foster discussions on the role of education for middle-aged and older adults in driving social transformation. We warmly welcome experts, scholars, and graduate students from around the globe to join this event.

Conference Overview:

- Dates: Friday, March 14 – Saturday, March 15, 2025
- Venue: National Taiwan Normal University, 129, Heping East Road, Section 1, Da'an District, Taipei, Taiwan
- Registration Fee: Free of charge
- Format: Keynote Speech, Industry-Academia Forum, Symposium, Paper Presentation

Key Topics:

The conference will feature diverse themes, including but not limited to:

- Career Development and Transition Support for Middle-aged and Older Adults
- Psychological and Spiritual Well-being in Aging Education
- Trends and Challenges in Digital Learning for Middle-aged and Older Learners
- Integrating Smart Assistive Technologies and Adaptive Tools in Lifelong Learning
- Sports Technology and Health Promotion in Aging Education
- The Role of Music, Art, and Reading in Lifelong Learning for Older Adults
- Applications of Information Technology and Generative AI in Aging Education

"The 1st International Conference on Education for Middle-Aged and Older Adults 2025: Designing Tailored Quality Education for Middle-Aged and Older Adults" offers a unique opportunity to engage with global peers, contribute to discussions on tailored educational approaches, and help shape the future of learning for middle-aged and older adults. We look forward to your participation! For more information, please visit the conference website: <https://top.ntnu.edu.tw/CEOEd2025/en/home.aspx>.

Upcoming Events

The 5th World Congress of Taiwan Studies

Co-organized by Academia Sinica
and National Taiwan Normal University.



The Secretariat of World Congress of Taiwan Studies (WCTS) is pleased to announce the 5th World Congress of Taiwan Studies will be held in person in Academia Sinica, Taipei, Taiwan, from May 21 to May 23, 2025. We sincerely invite you to participate and share this exciting news on your association's website and social media.

This theme of 2025 WCTS is: "Taiwan in a Changing World: Past, Present, and Future." We welcome participants to study the evolving relationships between Taiwan and the world from the past to the present and the future. We encourage participants to address various issues, including history and philology, archeology, ethnology, modern history, economics, Taiwan history, European and American studies, Chinese literature and philosophy, sociology, linguistics, law, political science, as well as humanities and social sciences. We expect this conference to provide a comprehensive and intellectual platform for the communities of Taiwan studies around the globe.

For more detailed information about the 2025 WCTS, please visit website at: https://wctsv.project.sinica.edu.tw/english/english_index.html.

Awards & Honors

Dr. Yu-Kai Chang Named International Fellow by National Academy of Kinesiology

Yu-Kai Chang, distinguished professor and chair of NTNU's Department of Physical Education and Sport Sciences, has been named an International Fellow by the National Academy of Kinesiology (NAK) in the U.S. He is the youngest recipient of this honor in 2024 and the fifth Taiwanese scholar to receive this distinction. Recognized for his contributions to sport and exercise psychology, Chang has published extensively and played a key role in global research initiatives, elevating Taiwan's academic presence in kinesiology.



Research Interest:

Exercise Psychology; Sport Psychology; Sport and Exercise Cognitive Neuroscience; Physical Activity and Cognition; Cognitive Neuroscience

Dr. Dennis Kivlighan, Jr. Receives Fulbright Global Scholar Award



Dr. Dennis Kivlighan, Jr., co-member of the SEED Center, has been honored with the prestigious Fulbright Global Scholar Award. This recognition highlights his contributions to international research and collaboration in his field.

Research Interest:

Process and outcome in counseling and psychotherapy groups; The therapy relationship: Working alliance, Real Relationship and Transference-Countertransference; Actor-Partner Interdependence Model applied to groups; Dyadic methods for analyzing the therapeutic relationship; Longitudinal analyses.

NTNU Featured Research Newsletter



ITSC

International Taiwan Studies Center, NTNU

國際臺灣學研究中心



社會情緒教育與發展研究中心

Social Emotional Education and Development Center



華語文與科技研究中心
Chinese Language and Technology Center



學習科學跨國頂尖研究中心

Institute for Research Excellence in Learning Sciences