IRENE TAN KHENG LIANG CONFERENCE GRANT

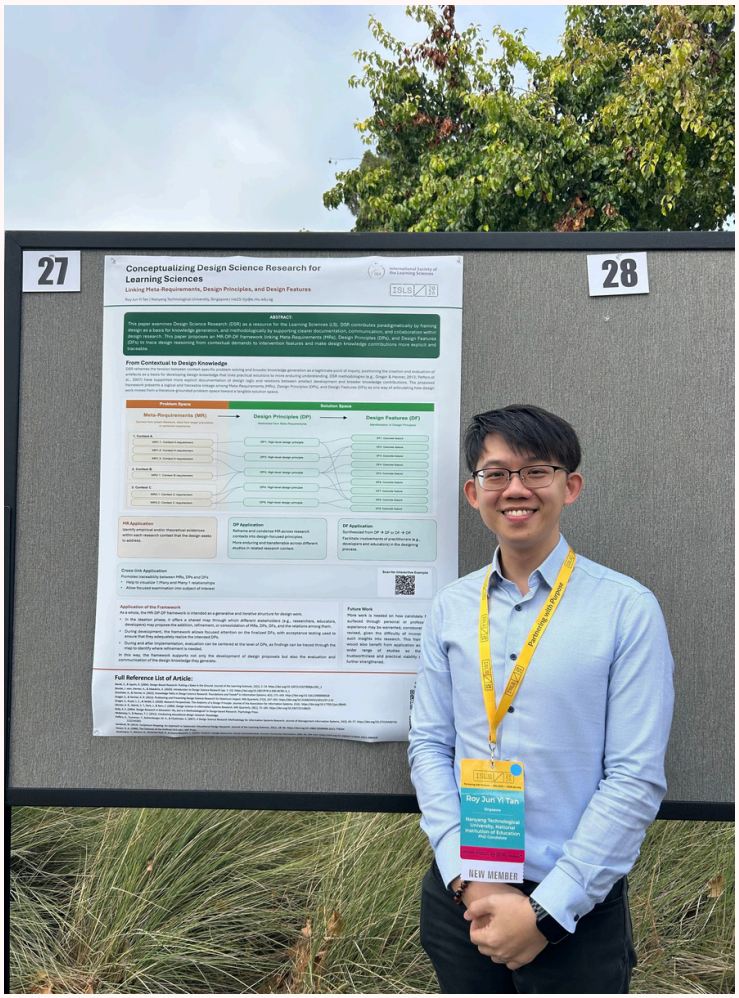
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MR ROY TAN

Doctor of Philosophy
(Learning Sciences & Assessment)

With the support from the Irene Tan Kheng Liang Conference Grant, Mr Roy Tan, Doctor of Philosophy student from the Learning Sciences & Assessment Department, participated in the International Society of the Learning Sciences Annual Meeting 2026 in Irvine, California, USA from 15 to 19 June 2026.

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Hi Roy, could you briefly introduce yourself and the conference you attended?

My name is Roy Tan, and I am a Doctor of Philosophy student from the Academic Department of Learning Sciences & Assessment. With the support of the Irene Tan Liang Kheng Conference Grant, I attended the International Society of the Learning Sciences Annual Meeting 2026 in Irvine, California, USA, from 15 to 19 June 2026. I also presented my work within its International Conference of the Learning Sciences programme.

Disclaimer: All information is correct as at September 2026.

What was your presentation about?

My poster, titled “Conceptualizing Design Science Research for Learning Sciences: Linking Meta-Requirements, Design Principles, and Design Features,” examines a pertinent tension between design and research. On one hand, an effective intervention design has to address the contextualised demands of an educational setting. On the other hand, meaningful research should produce knowledge that extends beyond narrow situated contexts.

To address this tension, researchers from the Learning Sciences have developed methods that allow for the abstraction of knowledge from design contexts. Conjecture mapping, for example, links design embodiments of an intervention to the outcome by tracing mediating processes and proofing designs and theoretical conjectures. Yet, the gap between how the embodiments are synthesised remains obscure. When this reasoning is left implicit, part of the design logic is lost from the research account.

How did this connect with your doctoral research?

This challenge has become especially relevant to my doctoral research, which involves multiple contexts. My study sits at the intersection of self-directed and self-regulated learning, educator professional learning and learning with Generative AI chatbots. With each field having its own set of literature, I found myself lacking a means to communicate the logic behind my design: how did the theories across these fields inform the design?

This prompted me to explore further into adjacent fields such as information sciences to uncover how technological design features are justified. Through this exploration, I encountered Design Science Research (DSR), whose methods offered a clearer way of tracing the reasoning behind a design. These methods subsequently informed the framework presented in my poster.

What did you gain from presenting your work in person?

The grant allowed me to participate in person, which became central to what I gained from the conference as I was able to discuss my research with scholars whose work I had encountered through the literature, and take part in conversations that continued beyond the formal sessions. These exchanges deepened my understanding of the field and gave me a clearer sense of how I might contribute to it.

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What advice would you share with another first-time conference participant?

If I were to share one reflection with another first-time conference participant, it would be to echo the advice from the President of ISLS in adopting a proactive attitude toward engaging in conversations with fellow researchers. Many of my most meaningful experiences began when I stepped out of my comfort zone to raise a question or approached a presenter after a session. Joining a special interest group or taking part in the mentoring session can also open opportunities for exchange. These conversations allowed me to expand my horizons and often left me with a better question than the one with which I had begun.

What would you like to say about the support you received?

I am deeply grateful to the Irene Tan Liang Kheng Conference Grant for enabling me to attend the ISLS Annual Meeting 2026 in person. This support made it possible for me to present my work and gain invaluable feedback within its scholarly setting. It also allowed me to form relationships through conversations that could not have been achieved remotely. I returned more aware of the depth and work required to contribute to the Learning Sciences. These changes grew from being welcomed into a scholarly community that treated my participation with generosity. This experience made me look forward to the next opportunity to attend similar conferences in the future!

For more information on the Doctor of Philosophy (PhD) programme, please visit https://ntu.sg/nie-phd.

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