The Teacher's Role in Game- & Simulation-based Learning
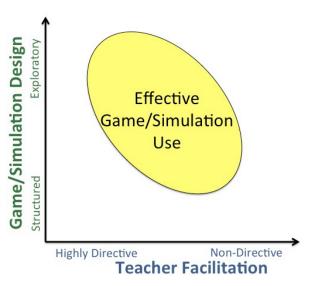
Presenters:
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Session Description:
In this session, we explore how the role of the teacher is envisioned in TESLA, Evidence Game, Data Games, PhET Interactive Simulations and MathSnacks.

Design and Facilitation Relationship:
From our collective experience, we concluded that one contributing factor to effective use of games and simulations is the correlation between the amount of guidance provided through teacher facilitation and the level of guidance designed into the game or simulation. Over or under directed facilitation can work against the level of structure designed into the game or simulation, resulting in low student engagement and minimal learning.

The Broad Role of the Teacher in Game- and Simulation-based Learning:
Though we focus during this session on the role of the teacher during game and simulation use, the teacher's role spans beyond classroom facilitation. We list below other areas where the teacher role is crucial in game- and simulation-based learning.

Teacher Roles in Game & Simulation Use

Before Class	In Class Before Use	Initiating Use	During Use	After Use
• Play game • Plan when to use in curriculum • Plan/adapt lesson • Ensure technology works	• Select learning goals • Link to prior knowledge • Set timeframe for use • Decide implementation details ○ Competition or not ○ Self paced or teacher sets goal	• Tutorial (if needed) • Teacher directions for use (if needed)	• Allow play time • Discussion with individuals, groups or class • Monitor progress • Assess learning • Special needs support • Manage behavior	• Facilitate reflection • Assess learning • Follow-up activities

Online Support

• Standards alignment • Sample lessons • Bonus activities • Video with lesson ideas • Use details & content • Tech specifications	• Possible learning goals • Possible norms and structures	• Video with gameplay tutorial • Possible discussion questions • Ideas for various levels of support	• Align performance in game with learning goals	• Possible reflection questions • Possible assessment activities • Possible extension activities