



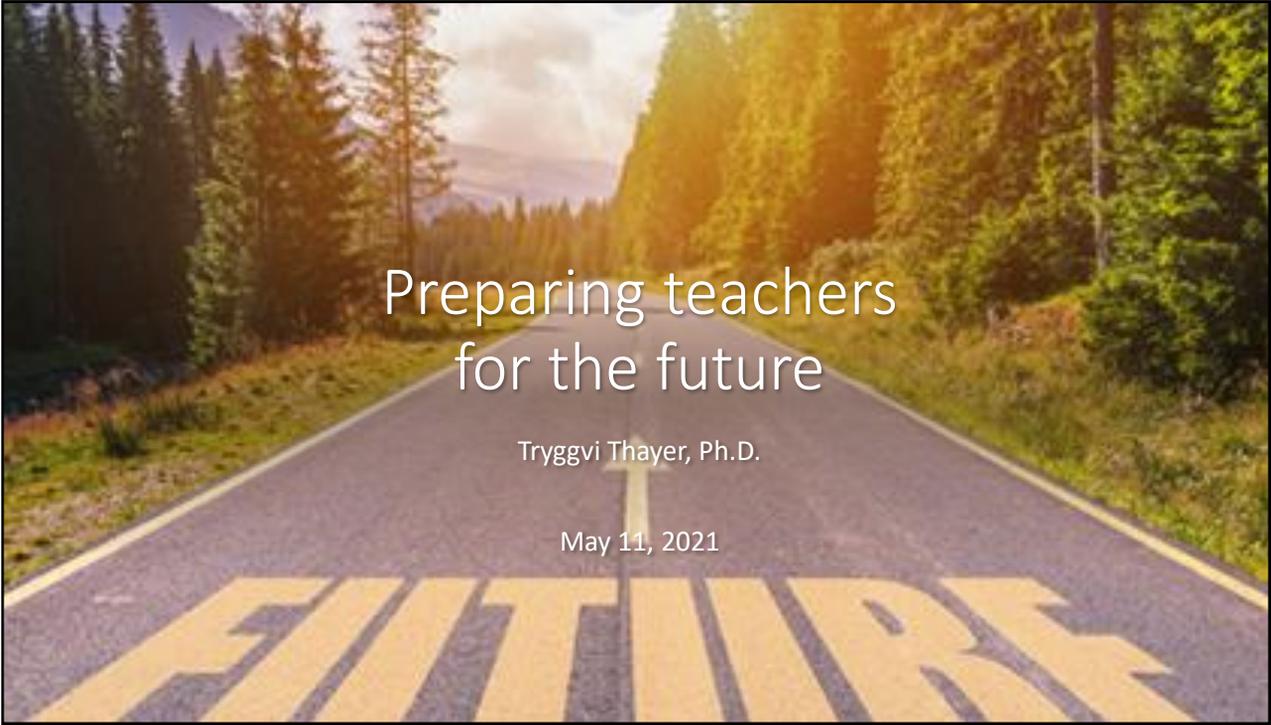
Presentation

by Mr. Tryggvi Thayer

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Preparing teachers for the future

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Changing learning landscapes

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Some things don't change

- Learning environments
 - Where does learning occur?
 - How does the environment affect learning?
- Engagement
 - Curiosity
 - Determination
 - Motivation
- Agency
 - Ownership in learning process
- Authenticity
 - Relevance
 - Usability



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Learning in the 21st century

Learning happens – for good or ill

Challenges:

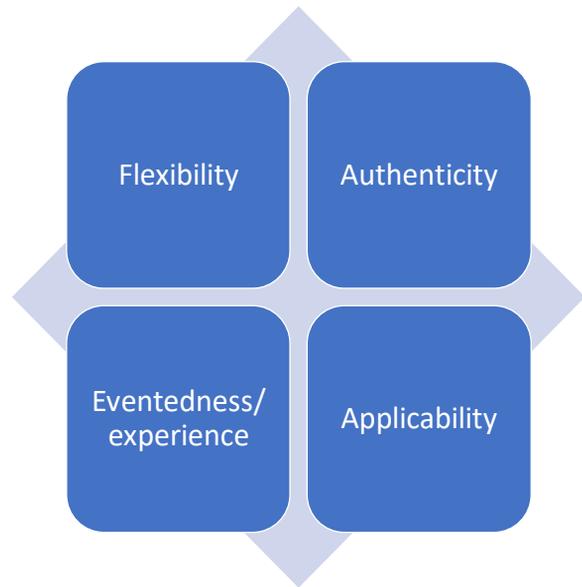
- Free flow of information
- Digital distractions
- Manipulable media
- Declining confidence in formal educational systems
- Social isolation

Opportunities:

- Free flow of information
- Digital engagement
- Manipulable media
- Social media

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Teaching strategies for the 21st century



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Project-based learning

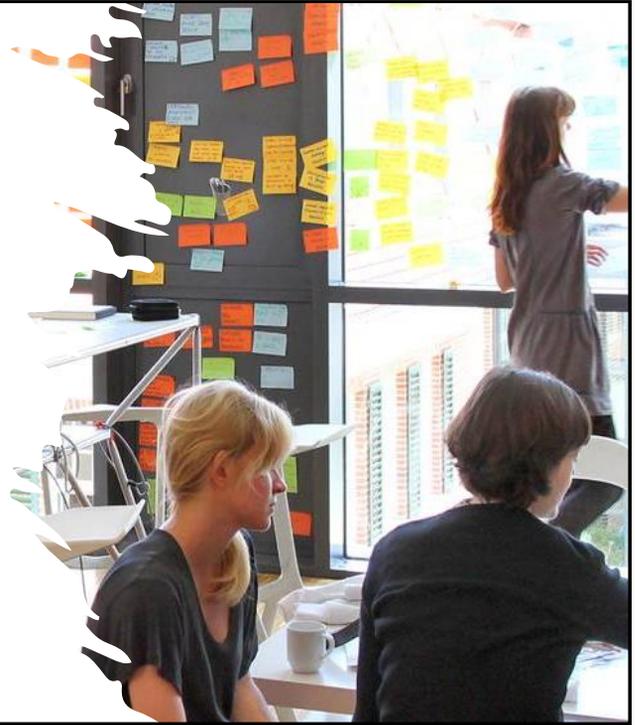
- Multi-faceted projects that require development of skills & knowledge over extended periods culminating in a public product.
- Students
 - Progressive inquiry-based learning
 - Students identify their own knowledge & skills needs
 - Collaborative
- Teachers' roles
 - Scaffolding (ensure students have the knowledge & skills that they need)
 - Coaching
 - Assessment



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Problem/challenge-based learning

- Address complex real-world challenges in collaborative learning environments using design-thinking (or similar) processes.
- Students
 - Investigate real-world challenges
 - Problematize ill-defined issues
 - Collaborate & create
 - Act
- Teachers' role
 - Scaffolding
 - Coaching
 - Structure
 - Assessment



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Gamified learning (*not game-based learning*)

-
- Mechanics and frameworks of strategic games used to motivate and engage students in learning activities.
 - Students
 - Identify their own knowledge & skills needs
 - Progressive learning (novice to master)
 - Address in-game issues collaboratively
 - Social networking
 - Compete *FOR THE WIN!*
 - Teachers' roles
 - Can vary depending on game
 - Design game environment, storyline, and roles
 - Game-master
 - Scaffolding
 - Assessment



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Makerspaces

- Learning environments specifically designed to support constructionist learning that involves designing, prototyping, and building *stuff*.
- Students
 - Progressive inquiry-based learning
 - Problematization
 - Collaborative design
 - Construction
- Teachers' roles
 - Design lessons that align with construction
 - Resource management
 - Scaffolding
 - Coaching
 - Assessment



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The 21st century teacher

- Long-term thinking
 - Learning is an ongoing progressive process
 - Learning activities form coherent frameworks
 - Learning environment is as much for them as for students
- Coaching
 - Provides opportunities for students to influence their own learning environment and activities
 - Scaffolds learning as needed
 - Trusts students
 - Provides meaningful formative assessments as needed
- Creativity
 - Creative instructional design
 - Provides opportunities for students to engage in design-oriented activities
- Collaborative
 - Relies on own collaborative networks
 - Supports students' collaborative networks

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Thank you!

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