



# TRUly Flexible (Flipped) Learning: An evidence-based resource

- Carol Sparkes, PhD

Thompson Rivers University (TRU)

Kamloops, British Columbia

Canada

Tk'emlups te Secwepemc territory



# TRULY Flexible Learning

- Instructional Design Resource
- Flexible learning = Blended learning (Face-to-face and online) BL
- Flipped Classroom (FC) is a form of blended learning (online video lecture as homework; face-to-face active learning in class)
- Literature: BL and FC > CI in higher education on average but not consistent. No reason why.

# Underlying Cognitive Processes

- Attention to Essential Structures and Features
- Spaced Repetition
- Successful, Effortful Retrieval from Long Term Memory

Yan, V. X., Sana, F., & Carvalho, P. F. (2024). No simple solutions to complex problems: Cognitive science principles can guide but not prescribe educational decisions. *Policy Insights from the Behavioral and Brain Sciences*, 11(1), 59-66.



# Cognitive Science - Flipped Classroom

[Flex.TRUbox.ca](http://Flex.TRUbox.ca)

Cognitive Learning Processes	Flexible (Flipped) Classroom
Attention to Essential Structures and Features	<ul style="list-style-type: none"> <li>• Video lecture and worked examples (homework)</li> <li>• In class mini-lecture</li> <li>• Activities</li> </ul>
Spaced Repetition	<ul style="list-style-type: none"> <li>• (Intro) Online video lecture</li> <li>• (Repeat) Pre-class quiz</li> <li>• (Repeat) In class mini-lecture</li> <li>• (Repeat) In class active learning</li> </ul>
Successful, Effortful Retrieval from Long Term Memory	<ul style="list-style-type: none"> <li>• In class active learning</li> <li>• Assignments, projects, tests and exam</li> </ul>



# 30th ICDE

## World Conference 2025



INTERNATIONAL  
COUNCIL FOR OPEN AND  
DISTANCE EDUCATION

**Open Polytechnic**  
KURATINI TUWHERA



TE KUNENGA  
KI PŪREHUROA  
**MASSEY**  
UNIVERSITY  
UNIVERSITY OF NEW ZEALAND