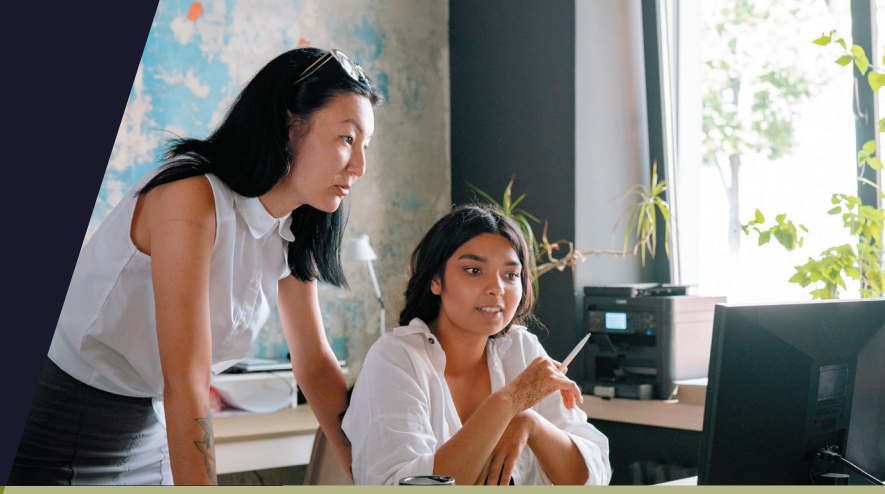
ADAPTIVE LEARNING



2021/2022

# Adaptive 3.0

## Pilot Project

**To better understand how adaptive learning is deployed in the postsecondary sector, and how educators perceive the instructional model, eCampusOntario conducted an environmental scan of the Ontario postsecondary sector.**

## Research Questions

**1**

**What are the general perceptions of higher education administrators as it relates to the potential of adaptive learning to improve learner outcomes?**

**2**

**What conditions exist at the department level and institutional level that may promote or inhibit the adoption of adaptive learning technologies or innovation more broadly in Ontario's postsecondary sector?**

**3**

**What are some of the past, current, and potential uses of adaptive learning technologies in Ontario's postsecondary sector?**

## Environmental Scan Design

**Survey** — Identify current Adaptive Learning practices and understanding of factors influencing current state of AL

**Focus Groups/Interviews** — Identify themes among those with no Adaptive Learning adoption and distinctions among those with some Adaptive Learning adoptions

**Synthesis** — Thematic Analysis using Scaccia et al. (2015) practical implementation science heuristic for organizational readiness to innovate

**300**
people surveyed with a 24% Response rate

**12**
focus group/interview participants

**52%**
Represented 52% colleges, 33% universities, 15% Indigenous Institutes

## Findings from our work

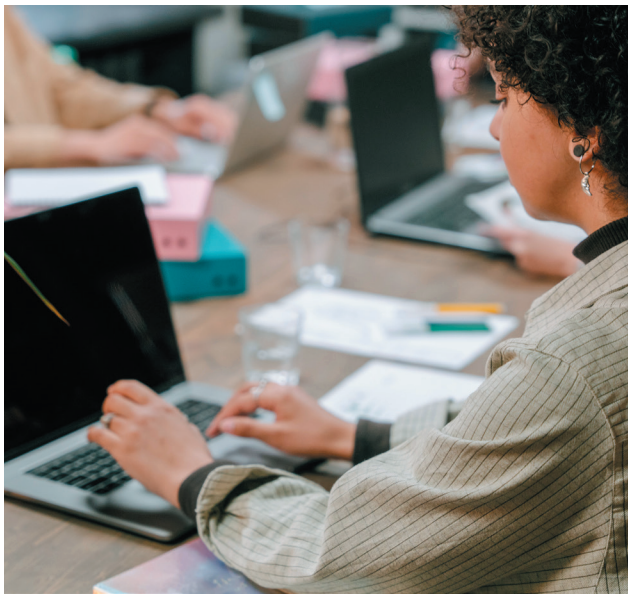
Ontario postsecondary educators overwhelmingly see the potential for adaptive learning to improve learning outcomes, but few educators were aware of work in adaptive learning at their institution. Most educators viewed obstacles to the implementation of Adaptive Learning as considerable.

**97%**
Agreed Adaptive Learning has the potential to improve learner knowledge, skill acquisition, & progression

**12%**
Were aware of an application of adaptive learning underway at their institution

**87%**
Considered obstacles to implementation to be "Considerable"

Like other e-learning concepts, there lacks a consistent terminology around adaptive learning. Educators may well be using adaptive learning techniques but labelling them as something different.



## Common names that can be used in place of Adaptive Learning include:

- **Machine Learning**
- **Artificial Intelligence**
- **Personalized Instruction**
- **Competency-based education**
- **Intelligent tutoring systems**
- **Gamification**
- **Virtual Simulation**

Any approach to education where instructors adjust the learning path for individual learner characteristics can be considered adaptive. Widening our perspective by including terms like those listed above means that adaptive technologies are likely more widely being used in Ontario than our environmental scan would indicate.

## According to educators, the ingredients necessary for adaptive learning and other educational technologies to take hold in Ontario's postsecondary education sector are:

**Leadership:**
Leaders at all levels of the institution play a key role in creating the conditions under which innovation can thrive. They need to talk about innovation regularly, articulate it in strategic plans, and commit resources for its advancement.

**Financial Support:**
Adaptive learning technologies require an investment in licensing, development, and implementation. These technologies do not need to be expensive, and educators should shop around for platforms that meet their specific needs.

**Faculty Capacity:**
Ongoing professional development and other supports are necessary to create the faculty capacity for innovation. Ontario's postsecondary education sector is well positioned, with 72% of respondents indicating that a culture of teaching and learning is embedded in their institution. Continuing to experiment is an important factor in innovation.

**Openness & Communication:**
Innovations, like adaptive learning, need to be clearly communicated as an institutional priority, faculty interaction facilitated through communities of practice, and systems need to be in place so that innovations are recognized and replicated as part of ongoing improvement.