Fichten, C., & Legault, A., in collaboration with Jorgensen, M., Havel, A., Harvison, M., & Vo, C. (2020, November 26). Inclusive design: Making face-to-face and online courses accessible to all students, with and without disabilities [Webinar]. Centre for the Study of Learning and Performance.

Inclusive design: Making face-to-face and online courses accessible to ALL students, with and without disabilities.

Catherine Fichten & Anick Legault

In collaboration with

Mary Jorgensen, Alice Havel, Maegan Harvison, & Christine Vo

Adaptech Research Network and Dawson College

Webinar for CSLP

November 26, 2020

Presentation Objectives

- Accessibility and post-secondary education

- Inclusion: UDL enables engagement and motivation

- Solving access problems

- COVID-19: Impact on learning

- Why bother with accessibility?

Who are we?

Polling activity – Get your cellphones out or open a new tab in your web browser!

Invisible Disabilities

Not all disabilities look like this

Some disabilities look like this

Accessibility and Post-Secondary Education

- 10% to 20% of your students have a disability[1]

- Study: n=1387 Cégep students[2]
  - 241 (17%) "self-reported" a disability
    - LD / ADHD
    - Mental Health Problems
    - Chronic health problems
    - Deafness, hearing and visual impairments
  - ALL your students must be able to
    - Read and understand your course materials

[1] Eagan, M. K., Stolzenberg, E. B., Zimmerman, H. B., Aragon, M. C., Whang Sayson, H. et Rios-Aguilar, C. (2017). *The American freshman: National norms fall 2016*. Higher Education Research Institute. https://www.heri.ucla.edu/monographs/TheAmericanFreshman2016.pdf

[2] Fichten, C.S., Havel, A., King, L., Jorgensen, M., Budd, J., Asuncion, J., Nguyen, M.N., Amsel, R. et Marcil, E. (2018). Are you in or out? Canadian students who register for disability-related services in junior/community colleges versus those who do not. *Journal of Education and Human Development, 7*(1), 166-175. DOI: 10.15640/jehd.v7n1a19

UDL Enables Commitment and Motivation

- Overview of Universal Design of Learning (UDL)
- http://udlguidelines.cast.org/
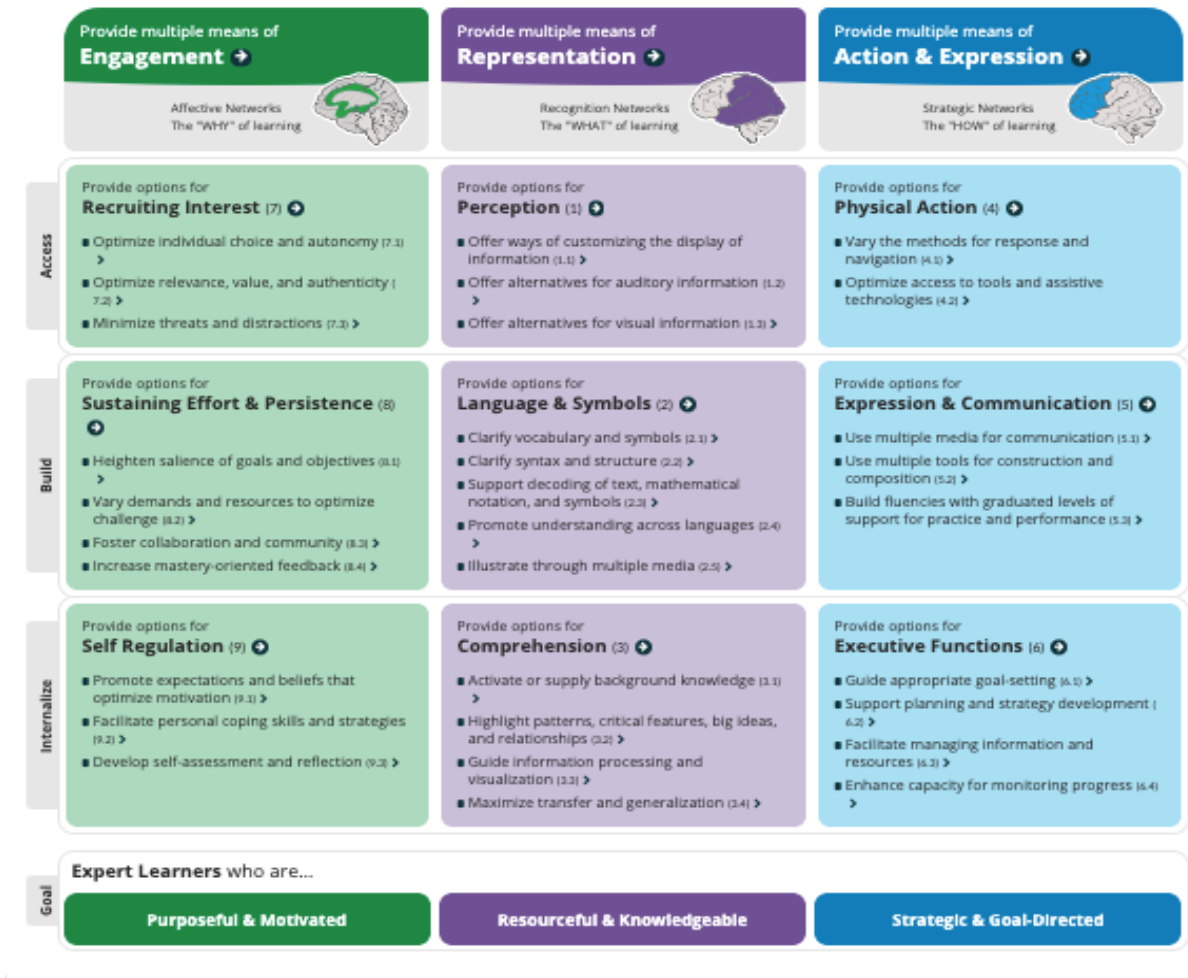
Universal Design for Learning Guidelines

Capp, M.J. (2017). The effectiveness of universal design for learning: A meta-analysis of literature between 2013 and 2016. International Journal of Inclusive Education (21)8, 791-807. DOI: 10.1080/13603116.2017.1325074

CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from http://udlguidelines.cast.org

UDL Enables Commitment & Motivation

- ## Alternatives for
  - ## Auditory
  - ## Visual information

Provide multiple means of
Representation →

Recognition Networks
The "WHAT" of learning

Provide options for
Perception (1) →

- Offer ways of customizing the display of information (1.1) ›
- Offer alternatives for auditory information (1.2) ›
- Offer alternatives for visual information (1.3) ›

UDL Enables Commitment & Motivation

- Vary response/ navigation methods
- Optimize access to tools & assistive technologies

Provide multiple means of
Action & Expression ➡

Strategic Networks
The "HOW" of learning

Provide options for
Physical Action (4) ➡

- Vary the methods for response and navigation (4.1) ❯
- Optimize access to tools and assistive technologies (4.2) ❯

ADAPTECH

Solving Access Problems

- Excellent free short videos

  - [1] [Basics for Inclusive Design for Online Education](https://www.coursera.org/learn/inclusive-design)

    - Free MOOC from Coursera

    - Watch videos when you need them:

      - Week 2: Accessible documents (Word, PDF, PPTX)

      - Week 3: Complex Images, Tables, Graphs (alt text)

      - Week 4: Captioning (YouTube and other videos)

[1] https://www.coursera.org/learn/inclusive-design

Solving Access Problems

- PowerPoints
  - [1]The Do's and Don'ts: The UD Perspective
  - [2]The students' viewpoint: six easy fixes
  - [3]Researching Best Presentation Practices

- Course Packs
  - Use new material - not photocopies
    - No underlining
    - No highlighting
    - No annotation in the margin

[1]https://adaptech.org/wp-content/uploads/Marcil_SALTISE_final.pptx
[2]https://adaptech.org/wp-content/uploads/abPsychBulletin.pdf
[3]http://www.profweb.ca/en/publications/articles/researching-best-presentation-practices-and-sharing-of-powerpoints

Solving Access Problems

- Course Captioning

- PPTX – built-in function ("craptions")
  - Zoom
  - Webex
  - Team
  - Stream – interactive textbox
  - YouTube

COVID-19: Impact on Learning

- Scientific literature review
- Chat / blog / forums
- Surveys
  - Dawson: 2 student surveys
  - Other institutions
    - Concordia - ongoing
    - Other institutions?

COVID-19: Impact on Learning

- Limited scientific information. Therefore
  - We have some Covid grants
    - PIA, S051, FRQSC
    - Brand new grant (SSHRC)
  - Waiting for other grants (Volkswagen Foundation)
  - Just applied
    - Knowledge synthesis (FRQSC)
   - Ministère de l'Économie et de l'Innovation (MEI)

Why Bother with Accessibility?

- Study results[1]

  - Students with and without disabilities

    - Grades = equal

    - Graduation rate = equal

    - Employment rate = equal

[1] Jorgensen, S., Fichten, C.S., Havel, A., Lamb, D., James, C. et Barile, M. (2005). Academic performance of college students with and without disabilities: An archival study. Canadian Journal of Counselling, 39(2), 101-117.

Grades
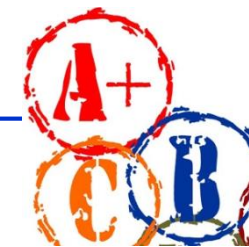
12-year archival Cegep study[1]

Program	Learning disabilities / ADHD		All other disabilities		No disability	
	n	Grade	n	Grade	n	Grade
Social sciences	166	64%	103	**70%**	13,908	62%
Career/ technical	32	64%	40	**71%**	4,634	67%
All programs	347	64%	285	**70%**	40,262	66%

[1] Jorgensen, S., Fichten, C.S., Havel, A., Lamb, D., James, C. et Barile, M. (2005). Academic performance of college students with and without disabilities: An archival study. Canadian Journal of Counselling, 39(2), 101-117.

Graduation and Perseverance

- Students with and without disabilities graduate at the same rate[1]

  - The graduation rate for **students with disabilities is actually higher**
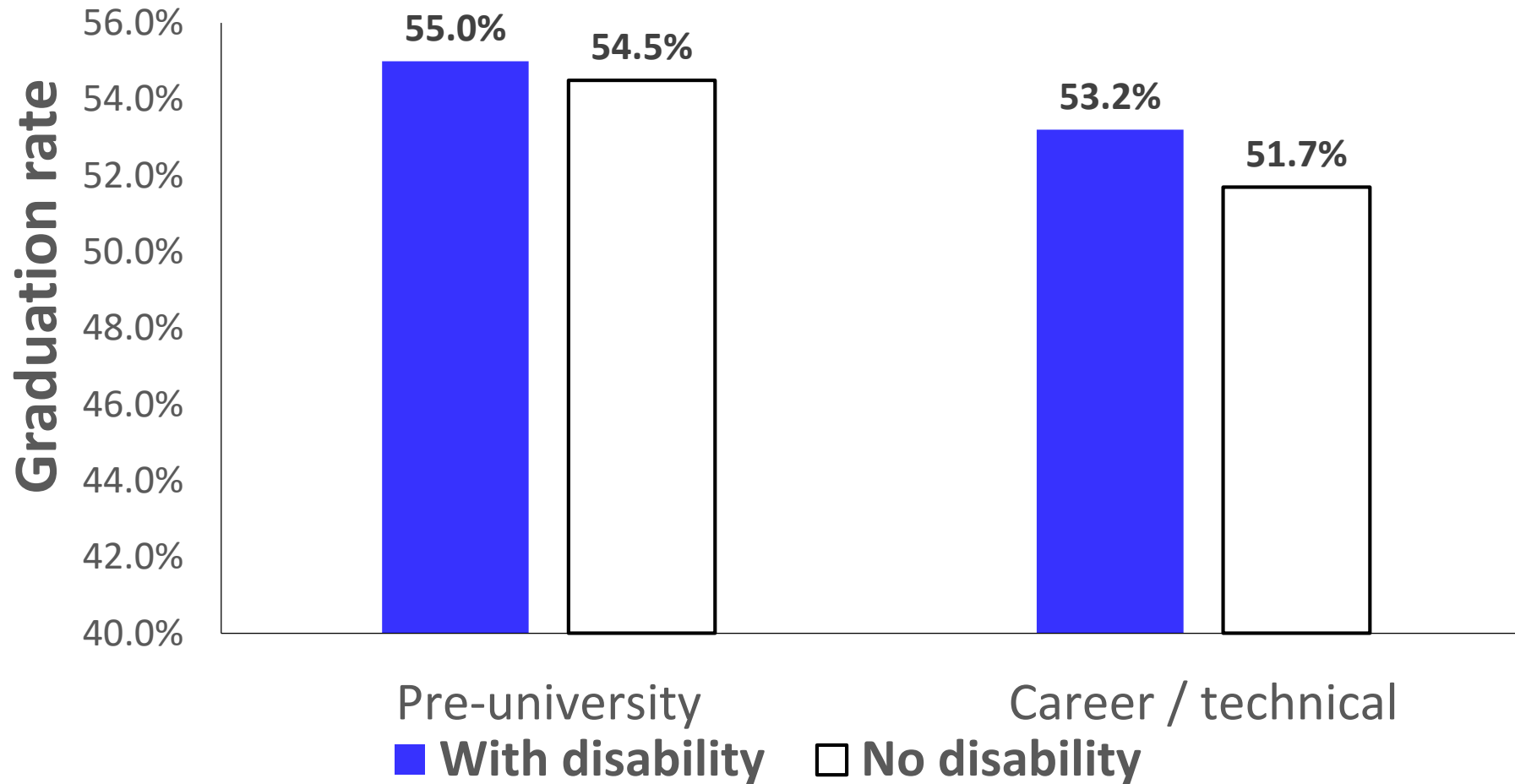
    - Not significantly

  - Take an extra semester

[1] Jorgensen, S., Fichten, C.S., Havel, A., Lamb, D., James, C. et Barile, M. (2005). Academic performance of college students with and without disabilities: An archival study. Canadian Journal of Counselling, 39(2), 101-117.

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Employment

Graduates of 3 colleges 5-10 months after graduation[1]

	n	Work full-time	Work part-time	Looking for a job	Student	Not available for work
Pre-university						
With disability	90	**10%**	**4%**	1%	83%	1%
No disability	752	**8%**	**5%**	2%	84%	2%
Career / technical						
With disability	86	**51%**	**15%**	1%	30%	2%
No disability	540	**49%**	**14%**	3%	31%	3%

[1] Fichten, C.S., Jorgensen, S., Havel, A., Barile, M., Ferraro, V., Landry, M-E., Fiset, D., Juhel, J-C., Chwojka, C., Nguyen, M.N., Amsel, R. et Asuncion, J.V. (2012). What happens after graduation? Outcomes, employment, and recommendations of recent junior/community college graduates with and without disabilities. Disability and Rehabilitation 34(11), 917-924.

Employment: 4 Years Later

- [1]Study n = 175 university students, 77 Cégep students
- 4 years later
  - 193 graduated from original program
  - 59 dropped out. Some
    - Switched to another program,
    - Another post-secondary institution
- Employment
  - 9% not in the workforce
  - Among those in the workforce
    - 82% are employed
  - Jobs (graduates) closely related to field of study

[1] Fichten, C., Amsel, R., Jorgensen, M., Nguyen, M. N., Budd, J., Havel, A., King, L., Jorgensen, S., & Asuncion, J. (2016).Theory of Planned Behavior: Sensitivity and specificity in predicting graduation and drop-out among college and university students? International Journal of Learning, Teaching and Educational Research, 15(7), 38-52. Retrieved from http://ijlter.org/index.php/ijlter/article/view/694/pdf

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Thank You! Questions?

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