

TURNING TWO SHIPS IN TANDEM

Roy, C. (2024, June 6-7). *Turning two ships in tandem: Leveraging clinical education for change* [Conference presentation]. 2024 Annual Education Conference: Canadian Association of Allied Health Programs, Ottawa, Ontario, Canada.

**Leveraging
clinical education
for change**



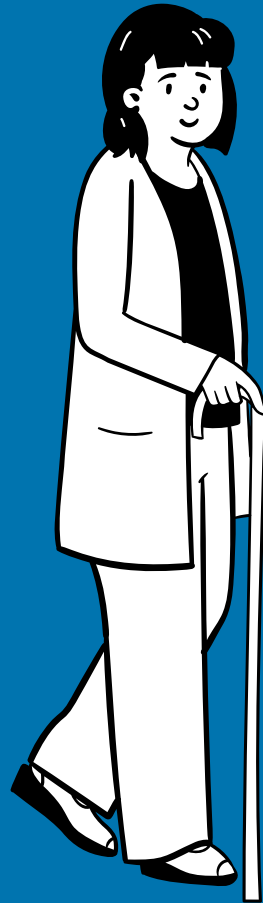
Who am I and why
am I here?

Physiotherapist: since 1998

Teacher: since 2015

Teaching in both classroom and clinic

Circa 2018, enter "Lisa"...



???

This brought up a lot of questions...

“What about confidentiality?”

Can I ask the student what is going on with her?

Can I accommodate her without knowing the details?

“What are the safety considerations?”

- For the student
- For the clients

“What are the essential components of this course?”

Can a student pass geriatric clinical education without being able to transfer any client?

Quest for
guidance...



Universal
Design for
Learning



**Flexible/customizable
learning environments**

I joined a CoP!



Cathy's experiments and adventures in UDL implementation

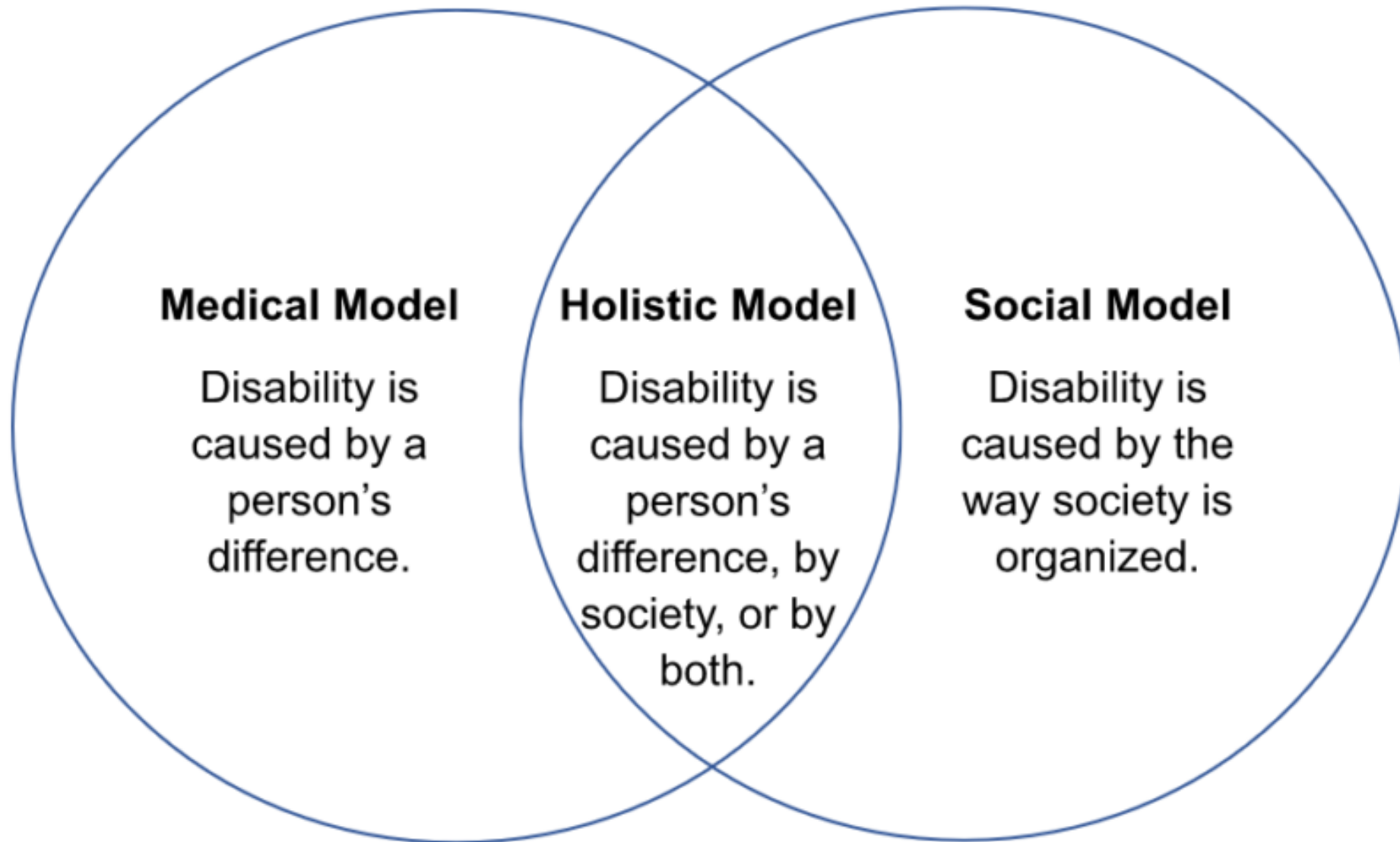
Universal Design for Learning

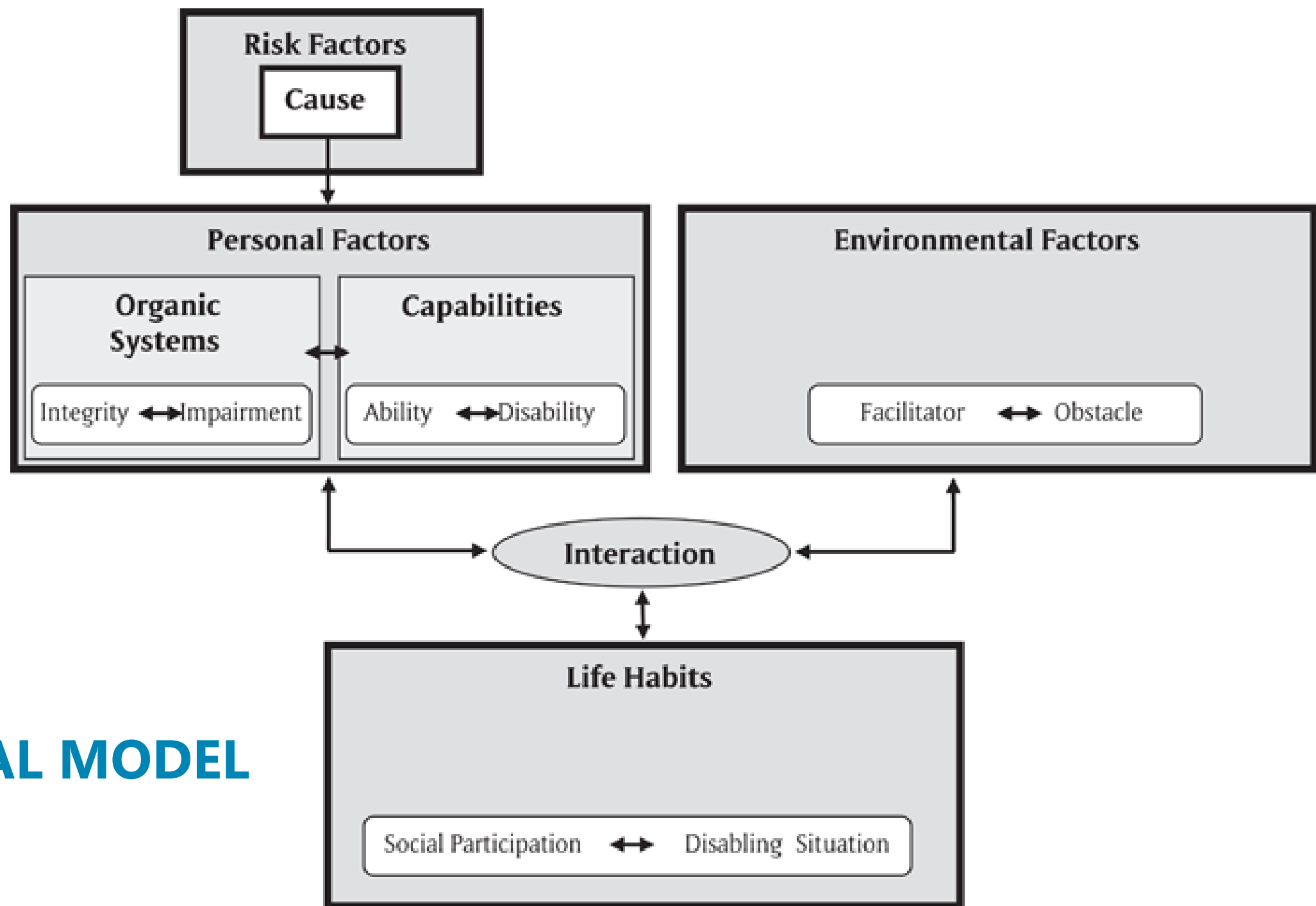
UDL @ DAWSON



But what is UDL?
Medical vs social model
Origins in built environment

Models of Disability





SOCIAL MODEL



Social model of disability in education settings:

Environments can be disabled/disabling

UDL treats each learning barrier as a design challenge

Design process begins with empathy

Once an enabling solution is found, why not extend the option to others?

Exclusion



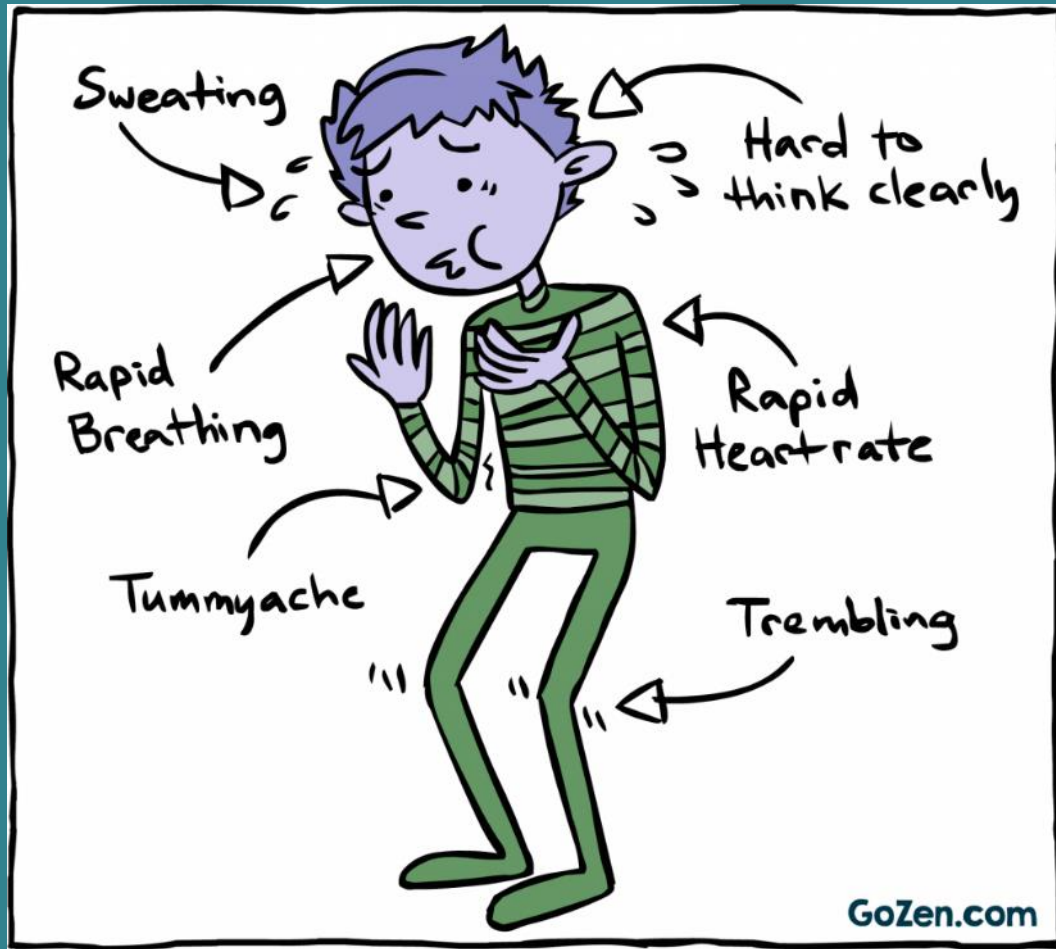
Integration



Inclusion



PRACTICAL EXAM anxiety vs. UDL



- Desire to be flexible and inclusive...
- But need to maintain rigour
- Grandma's hip
- Internal struggle
- Signature pedagogy: practical exams: an assessment as old as time (or at least as old as Cathy)
- The moment I realized something had to give

The context: Practical exams

ISSUES

- Lack of authenticity
- Student stress + + +
- Time constraints
- Delay in feedback = \uparrow stress

"Teacher"

Model

Student



UDL solutions to reduce practical exam anxiety (first shot)

Separate competencies:

- test treatment decisions on written exams, practical skills on practical exams

Reduce “unknown” element

Give case studies/skill list *prior to exam*

↑ formative feedback

More structured peer feedback (video playlist et al.)

Group simulation lab



Practical exams post-UDL: current practices

Video based:

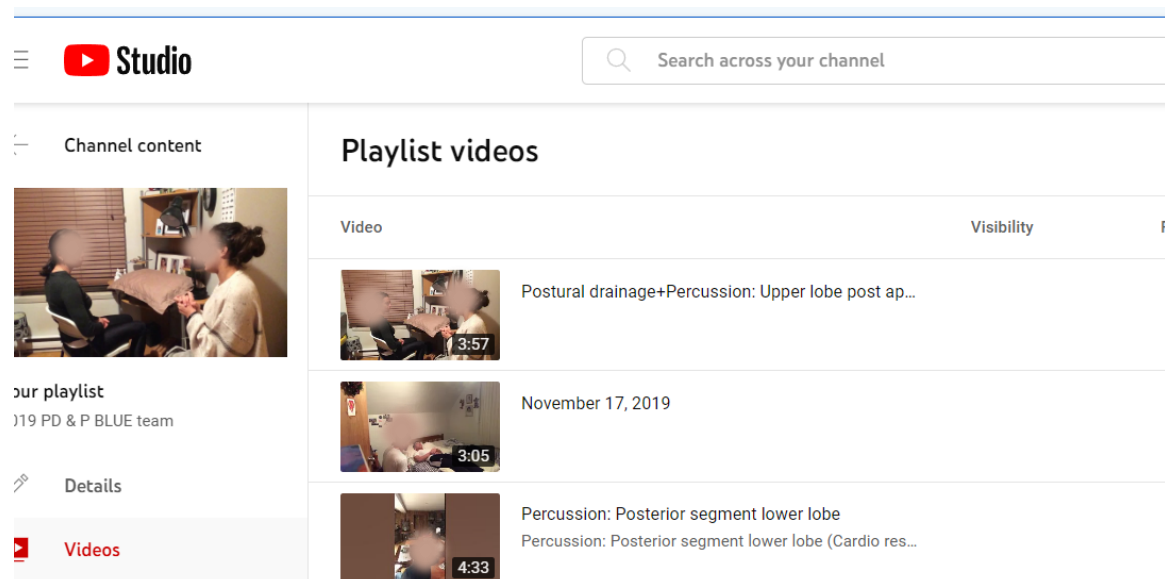
Lower stakes “feeling”
assessment
(RUBRIC/criteria are the
SAME!)

Facilitates grading and
feedback



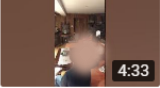
Grading is self-paced for
teacher, on own time

Encourages mastery learning

Students practice
techniques more to
perfect videos



The screenshot shows a YouTube Studio interface for a channel named "Studio". The left sidebar shows "Channel content" with a video thumbnail and "our playlist" (119 PD & P BLUE team). The main area displays "Playlist videos" with a table of video entries.

Video	Visibility	R
 3:57	Postural drainage+Percussion: Upper lobe post ap...	
 3:05	November 17, 2019	
 4:33	Percussion: Posterior segment lower lobe Percussion: Posterior segment lower lobe (Cardio res...	

BACK TO CLINICAL EDUCATION...

Applying new knowledge to new challenges:

- “Anna”: student with dyslexia
 - Needs: 1. tablet at clinical site
 - Barriers: 1. Laborious feedback process
 - 2. Site charting methods
 - *handwritten notes*
 - *lots of recopying....*



UDL in clinical education

An accidental recipe for moving from accommodation to inclusion

1

Ask secretary nicely if you can try a new process to facilitate charting (or remove whatever barrier you have identified!!)

2

Set ground rules re: patient confidentiality
Offer accommodation to student

3

Notice it saves a lot of time for teacher AND student
- *allows focus on learning objectives rather than rote copying*

4

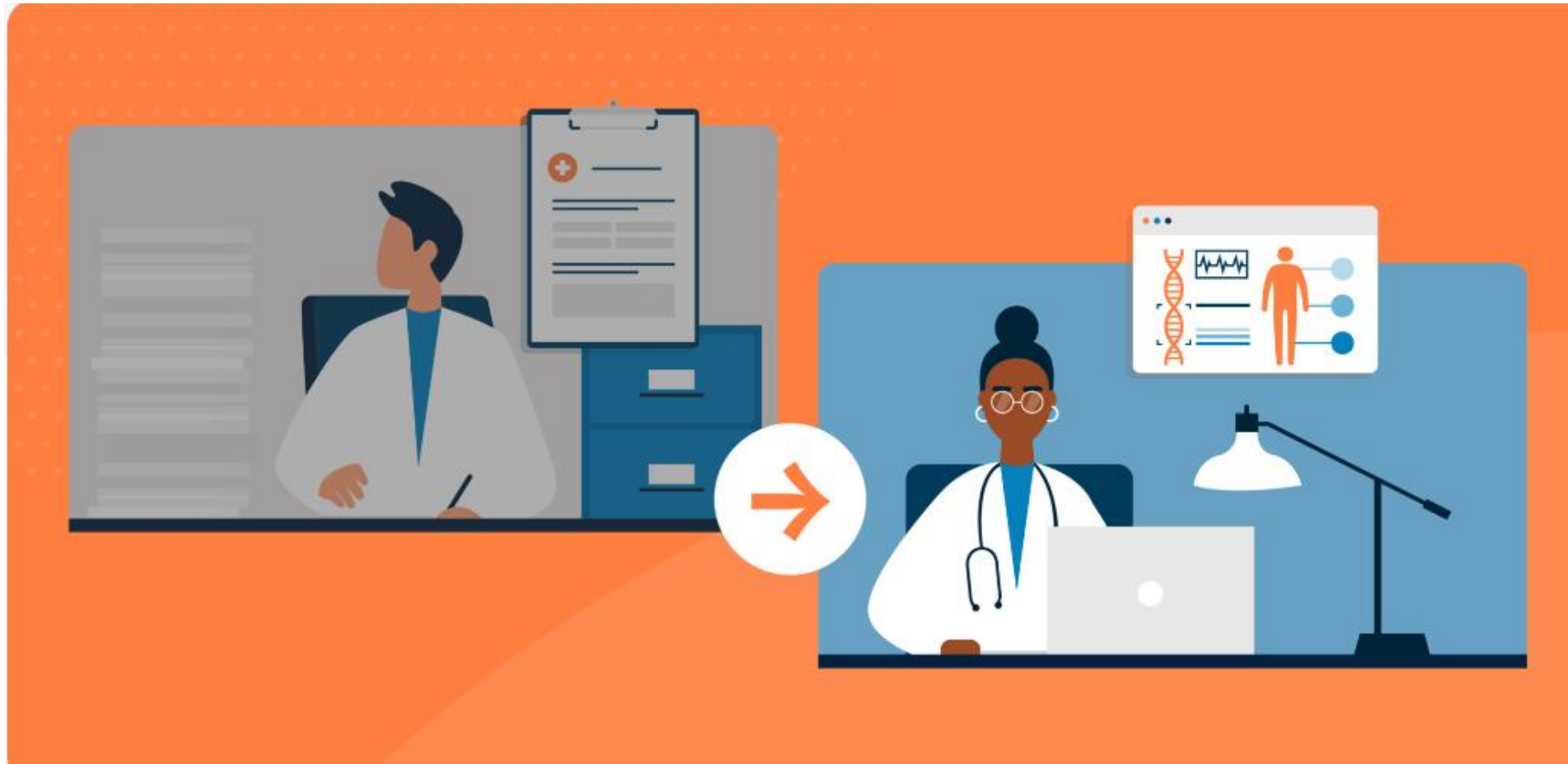
Offer new process to all students...

5

Because, WHY NOT?

Note: I still leave the option for handwritten plans...

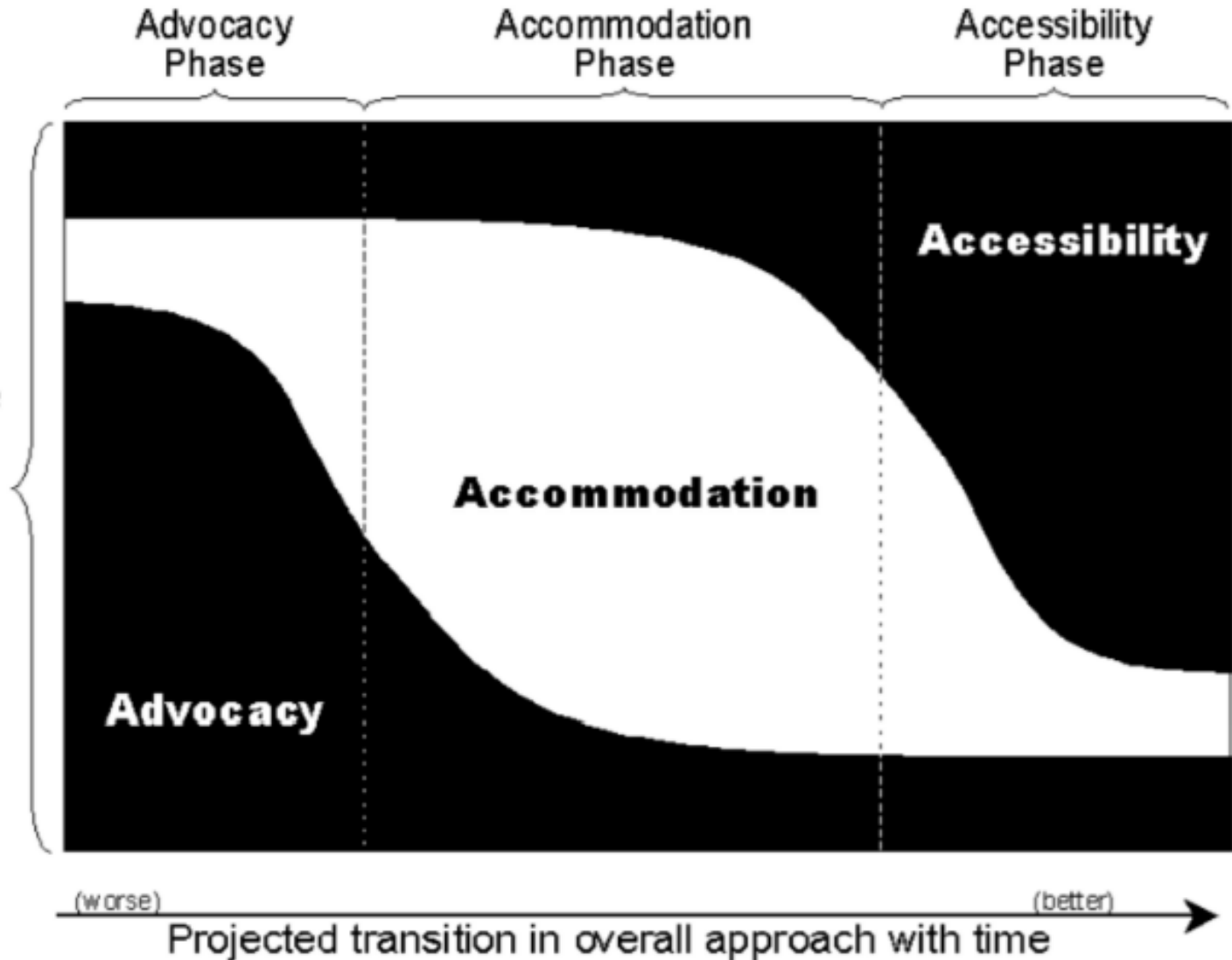
CUT TO ONE YEAR LATER...



The whole department was e-charting

The shift we witnessed (triggered?):

A System's
Overall Approach
at any point in time
(expressed as the
proportions of the
three strategies
used to meet the
needs of people
with disabilities)



What I learned:

- Maybe change is not always so slow...?
- And maybe it doesn't have to be the ship driver who drives change...



Cut to 2023.....

ADAPTECH RESEARCH NETWORK

- Interviewed multiple stakeholders
- Accommodations in clinical settings
- What are the facilitators?
- What are the barriers?
- Thematic analysis of results



The screenshot shows the ADAPTECH Research Network website. The header is blue with the ADAPTECH logo and name. A navigation bar contains links: What's New, About Us, Our Team, Research, and Publications. The main content area features a project titled 'Internship Toolkit for Students with Disabilities in Technical Programs'. Below the title, a grey box indicates the project status as 'Ongoing Projects' and the year as '2022-2023'. The project description states that students with disabilities face unique challenges during clinical internships, and the project aims to facilitate their experiences through a literature review, advisory board, and stakeholder interviews. It identifies recommendations and best practices for students with functional limitations. The project was funded by Entente Canada-Québec (ECQ).

ADAPTECH
Research Network

[What's New](#) [About Us](#) [Our Team](#) [Research](#) [Publications](#)

Internship Toolkit for Students with Disabilities in Technical Programs

Status: Ongoing Projects
Year: 2022-2023

Students with disabilities can face unique challenges during clinical internships, which are essential components of their programs. The goal of this project was to facilitate the internship experiences of students with disabilities enrolled in Dawson College health-related, social service and community recreational leadership programs. To accomplish this we conducted a literature review, formed an Advisory Board, and interviewed key stakeholders. Based on the information gathered from these sources, we identified a series of recommendations concerning successful techniques and strategies for students with different functional limitations. These recommendations, along with case examples of best practices, were developed and are disseminated as key components of our toolkit.

This project was funded by Entente Canada-Québec (ECQ).

Is This Bridge Safe to Cross?

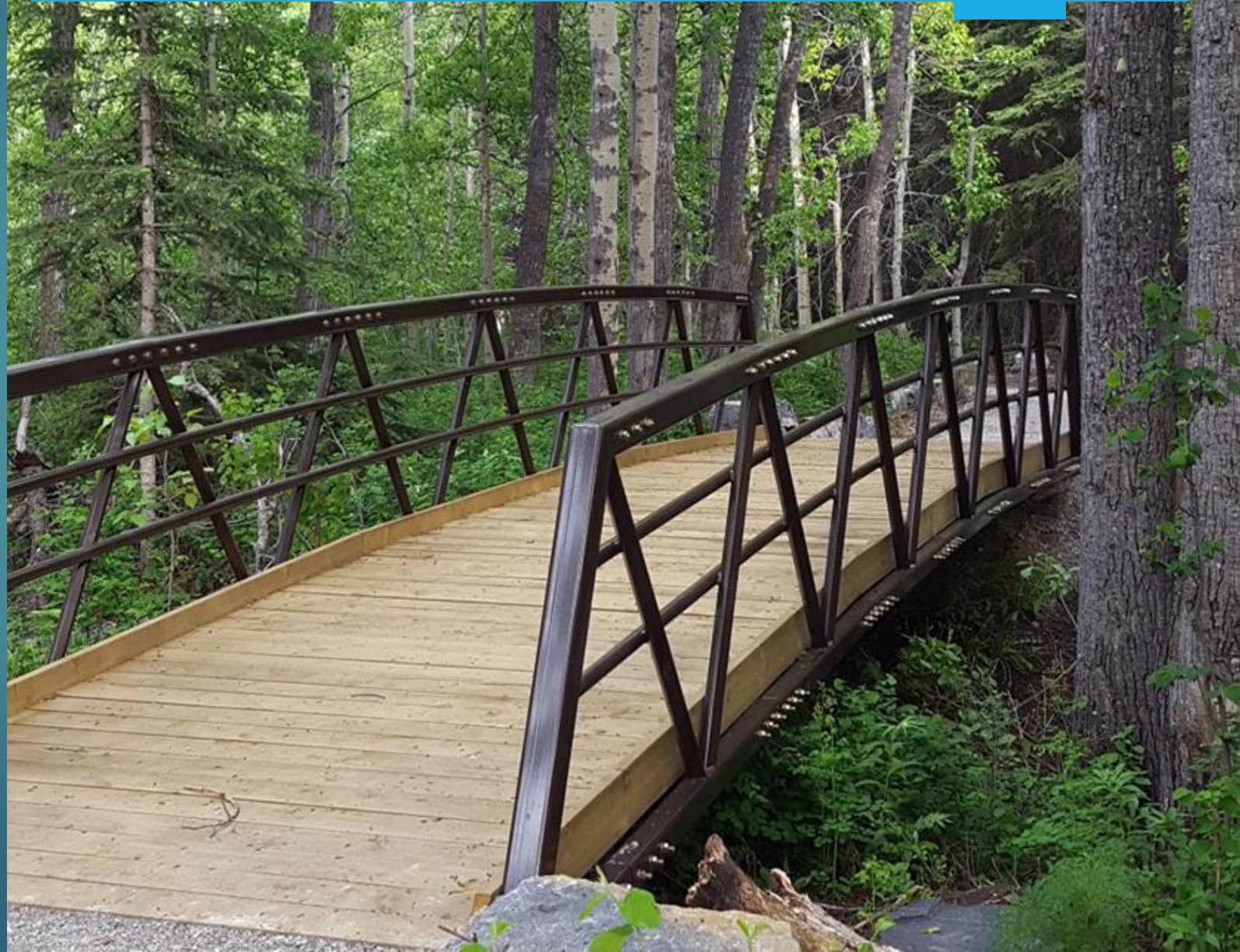
Fieldwork / Clinical
Internship Experiences
of Students with
Disabilities

Alice Havel Susie Wileman
Adaptech Research
Network

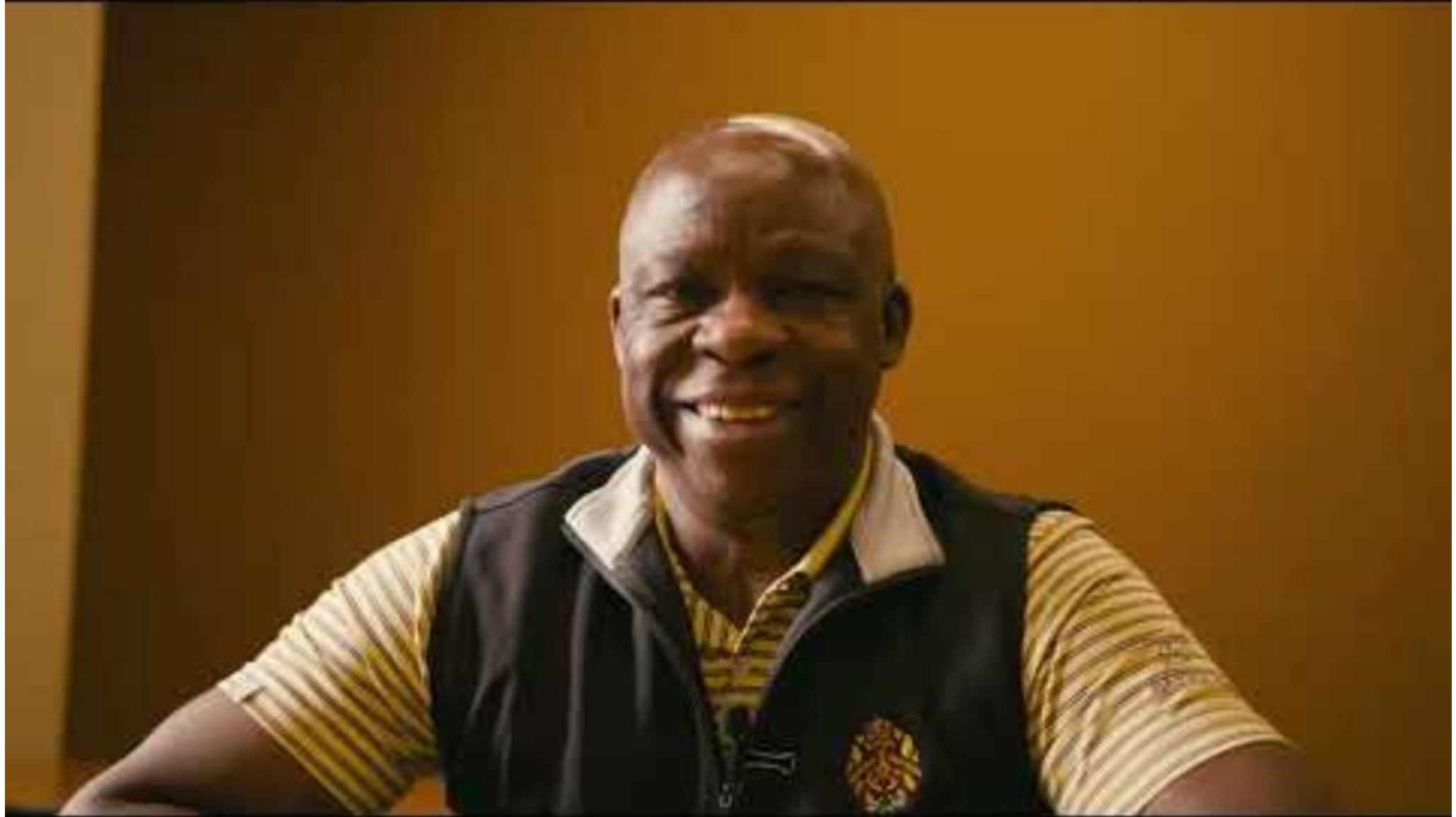
CACUSS Accessibility &
Inclusion Summit

May 4, 2023

Havel, A., & Wileman, S. (2023, May 4). *Is this bridge safe to cross* [Conference presentation]? CACUSS Accessibility and Inclusion Summit, Montreal, QC, Canada.



What CAN we do easily/NOW?



A pocketful of technology

**Tools &
strategies
that work: the
good news**

The landscape is changing...

Many tools now « built in »

Use of tech ubiquitous - passes more easily





Findings: the barriers

Unclear or absent policy

Lack of communication

Stigma: discourages disclosure

Lack of resources (time & other)

Habit? (« we have always done it like this »...)

Clinical supervisors

**Feel a need to prepare them for
"the real world"**

**BUT clinical sites also have a
legal responsibility to provide
reasonable accommodations to
employees...**

Students

Often don't disclose

**May not recognize the value of
disclosing in the clinical setting**

**May not know they have an issue
or understand why they are
struggling**

May be in a diagnostic process

Systemic

...

Resources

Shared challenges = shared resources

Universal design = economically sustainable

Once you have opened the door to an accommodation, the work is done

Technology

Needs to conform to confidentiality policies

It can!



Necessary for some = beneficial for all...

- Given: many struggling who are undiagnosed or for other/intersectional barriers....




Adapted environment also benefits those:

- with long commute
- looking after children
- With language barrier.... ETC...

Teacher does not always need to know about every student's use of adapted learning tasks

Student adjusts learning environment to their own needs and preferences



	Provide multiple means of Engagement  Affective Networks The "WHY" of Learning	Provide multiple means of Representation  Recognition Networks The "WHAT" of Learning	Provide multiple means of Action & Expression  Strategic Networks The "HOW" of Learning
Access	Provide options for Recruiting Interest ⁽⁷⁾ <ul style="list-style-type: none"> Optimize individual choice and autonomy (7.1) Optimize relevance, value, and authenticity (7.2) Minimize threats and distractions (7.3) 	Provide options for Perception ⁽¹⁾ <ul style="list-style-type: none"> Offer ways of customizing the display of information (1.1) Offer alternatives for auditory information (1.2) Offer alternatives for visual information (1.3) 	Provide options for Physical Action ⁽⁴⁾ <ul style="list-style-type: none"> Vary the methods for response and navigation (4.1) Optimize access to tools and assistive technologies (4.2)
Build	Provide options for Sustaining Effort & Persistence ⁽⁸⁾ <ul style="list-style-type: none"> Heighten salience of goals and objectives (8.1) Vary demands and resources to optimize challenge (8.2) Foster collaboration and community (8.3) Increase mastery-oriented feedback (8.4) 	Provide options for Language & Symbols ⁽²⁾ <ul style="list-style-type: none"> Clarify vocabulary and symbols (2.1) Clarify syntax and structure (2.2) Support decoding of text, mathematical notation, and symbols (2.3) Promote understanding across languages (2.4) Illustrate through multiple media (2.5) 	Provide options for Expression & Communication ⁽⁵⁾ <ul style="list-style-type: none"> Use multiple media for communication (5.1) Use multiple tools for construction and composition (5.2) Build fluencies with graduated levels of support for practice and performance (5.3)
Internalize	Provide options for Self Regulation ⁽⁹⁾ <ul style="list-style-type: none"> Promote expectations and beliefs that optimize motivation (9.1) Facilitate personal coping skills and strategies (9.2) Develop self-assessment and reflection (9.3) 	Provide options for Comprehension ⁽³⁾ <ul style="list-style-type: none"> Activate or supply background knowledge (3.1) Highlight patterns, critical features, big ideas, and relationships (3.2) Guide information processing and visualization (3.3) Maximize transfer and generalization (3.4) 	Provide options for Executive Functions ⁽⁶⁾ <ul style="list-style-type: none"> Guide appropriate goal-setting (6.1) Support planning and strategy development (6.2) Facilitate managing information and resources (6.3) Enhance capacity for monitoring progress (6.4)
Goal	Expert learners who are... Purposeful & Motivated	Expert learners who are... Resourceful & Knowledgeable	Expert learners who are... Strategic & Goal-Directed

ACCESS

Access

Provide options for

Recruiting Interest (7) ➡

- Optimize individual choice and autonomy (7.1) ➡
- Optimize relevance, value, and authenticity (7.2) ➡
- Minimize threats and distractions (7.3) ➡

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) ➡

Provide options for

Physical Action (4) ➡

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

“The basics”

- Salience, transparency, and perceptibility of information
- Where regulatory laws come into play
 - Absence of threats

BUILD

Offering Multiple ways to scaffold and support
-Where effective teaching practices come in

Build

Provide options for

Sustaining Effort & Persistence (8) ➔

- Heighten salience of goals and objectives (8.1) ➔
- Vary demands and resources to optimize challenge (8.2) ➔
- Foster collaboration and community (8.3) ➔
- Increase mastery-oriented feedback (8.4) ➔

Provide options for

Language & Symbols (2) ➔

- Clarify vocabulary and symbols (2.1) ➔
- Clarify syntax and structure (2.2) ➔
- Support decoding of text, mathematical notation, and symbols (2.3) ➔
- Promote understanding across languages (2.4) ➔
- Illustrate through multiple media (2.5) ➔

Provide options for

Expression & Communication (5) ➔

- Use multiple media for communication (5.1) ➔
- Use multiple tools for construction and composition (5.2) ➔
- Build fluencies with graduated levels of support for practice and performance (5.3) ➔

Examples: think aloud clinical reasoning modeling
Peer modeling
Teacher as coach, student as apprentice

Internalize

Progressing towards autonomy:

- Students learn to use tools/supports on their own, self-regulate and self-manage
- tools become job-embedded supports that disappear behind the work or facilitate it

Internalize

Provide options for
Self Regulation (9) ➡

- Promote expectations and beliefs that optimize motivation (9.1) ➤
- Facilitate personal coping skills and strategies (9.2) ➤
- Develop self-assessment and reflection (9.3) ➤

Provide options for
Comprehension (3) ➡

- Activate or supply background knowledge (3.1) ➤
- Highlight patterns, critical features, big ideas, and relationships (3.2) ➤
- Guide information processing and visualization (3.3) ➤
- Maximize transfer and generalization (3.4) ➤

Provide options for
Executive Functions (6) ➡

- Guide appropriate goal-setting (6.1) ➤
- Support planning and strategy development (6.2) ➤
- Facilitate managing information and resources (6.3) ➤
- Enhance capacity for monitoring progress (6.4) ➤

UDL tips for the toolkit

The WHY

Options for engagement in a clinical setting:

Recruiting interest: FOSTER ENTHUSIASM AND SAFETY

- Model enthusiasm for the site/context. ³
- Provide adaptable hours/shift patterns ⁴
- Match clinical site to student preferences and geographic location. ⁵
- Organize site visits & provide information work tasks prior to start date ⁶⁻⁸
- Provide a quiet location to read and write⁵
- Provide unrestricted access to a resource room for all students ⁸
- Close the curtain when working with patients to minimize distractions⁵

Sustaining effort and persistence: BUILD CONFIDENCE

- Create a welcoming environment with explicit value placed on diversity³
- Use engaging orientation activities including icebreakers & gamification ⁷
- Provide frequent, specific & actionable feedback ^{3,6}
- Provide clear and transparent learning objectives^{3,7}
- Review objectives early, using visual supports (e.g. concept map) ^{3,7}
- Organize student mentorship ^{4,6,7}
- Foster spirit of community & support^{5,6}
- Use virtual patients or off-site sims for extra skills practice ¹⁰

Self-regulation: BUILD AUTONOMY

- Schedule both physical and mental breaks⁵
- Allow flexible scheduling to support mentorship as needed ⁸
- Scaffold self-reflection & self-assessment ³
- Model positive outlook & support development of coping mechanisms, ⁶
- Support disclosure as needed and guide students to appropriate help ⁴

Provide multiple means of Engagement



Affective Networks
The "WHY" of Learning

Provide options for **Recruiting Interest**

- Optimize individual choice and autonomy
- Optimize relevance, value, and authenticity
- Minimize threats and distractions

Provide options for **Sustaining Effort & Persistence**

- Heighten salience of goals and objectives
- Vary demands and resources to optimize challenge
- Foster collaboration and community
- Increase mastery-oriented feedback

Provide options for **Self Regulation**

- Promote expectations and beliefs that optimize motivation
- Facilitate personal coping skills and strategies
- Develop self-assessment and reflection

Expert learners who are...

Purposeful & Motivated

UDL tips for the toolkit

The WHAT

Options for representation in a clinical setting:

Perception: SUPPORT PROCESSING OF INFORMATION

- Allow screen readers, Scribe pens & text magnification apps⁵
- Allow digital access to documentation off-site⁵
- Provide video/audio versions of resources with captions & transcript⁹
- Provide site maps & organizational chart of personnel with pictures⁸
- Provide hard copy and digital versions of reading materials⁸

Language & symbols: SUPPORT DECODING OF INFORMATION

- Allow recording of interactions & discussions (with consent)⁵
- Provide paper & electronic lexicons for institutional/disciplinary language⁸
- Use mnemonics to support memorization of procedures and skills e.g. ISBAR⁸
- Allow digital dictionaries & translation tools for language barriers⁵
- Suggest students carry notepad or index cards⁵

Comprehension: SUPPORT DEEP UNDERSTANDING & REASONING

- Use graphic organizers to structure information e.g:
 - cue cards, mind map software, visual flow charts for procedures^{4 8}
- Provide case examples and models for application of information^{3 8}
- Use peer modeling & feedback: work independently, then compare⁵
- Highlight critical features of a procedure, surgery, policy⁸
- Teach in a systematic way, e.g. from head to toe, or inside to outside⁸
- Use similar assessment formats from classroom to clinic⁹
- Use verbal comprehension tool “RAP” to support reading comprehension:
- Read a document, Ask meaning (2 key details), Paraphrase⁹
- Suggest students create “crib notes” to prompt quick decision-making⁵
- Allow students to record difficult procedures, encourage students to find/watch videos of medical interventions in their field to activate background knowledge⁵

Provide multiple means of Representation

Recognition Networks
The “WHAT” of Learning



Provide options for **Perception**

- Offer ways of customizing the display of information
- Offer alternatives for auditory information
- Offer alternatives for visual information

Provide options for **Language & Symbols**

- Clarify vocabulary and symbols
- Clarify syntax and structure
- Support decoding of text, mathematical notation, and symbols
- Promote understanding across languages
- Illustrate through multiple media

Provide options for **Comprehension**

- Activate or supply background knowledge
- Highlight patterns, critical features, big ideas, and relationships
- Guide information processing and visualization
- Maximize transfer and generalization

Resourceful & Knowledgeable

UDL tips for the toolkit

The HOW

Options for action & expression in a clinical setting:

Physical action: ALLOW VARIED MEANS OF INTERACTING

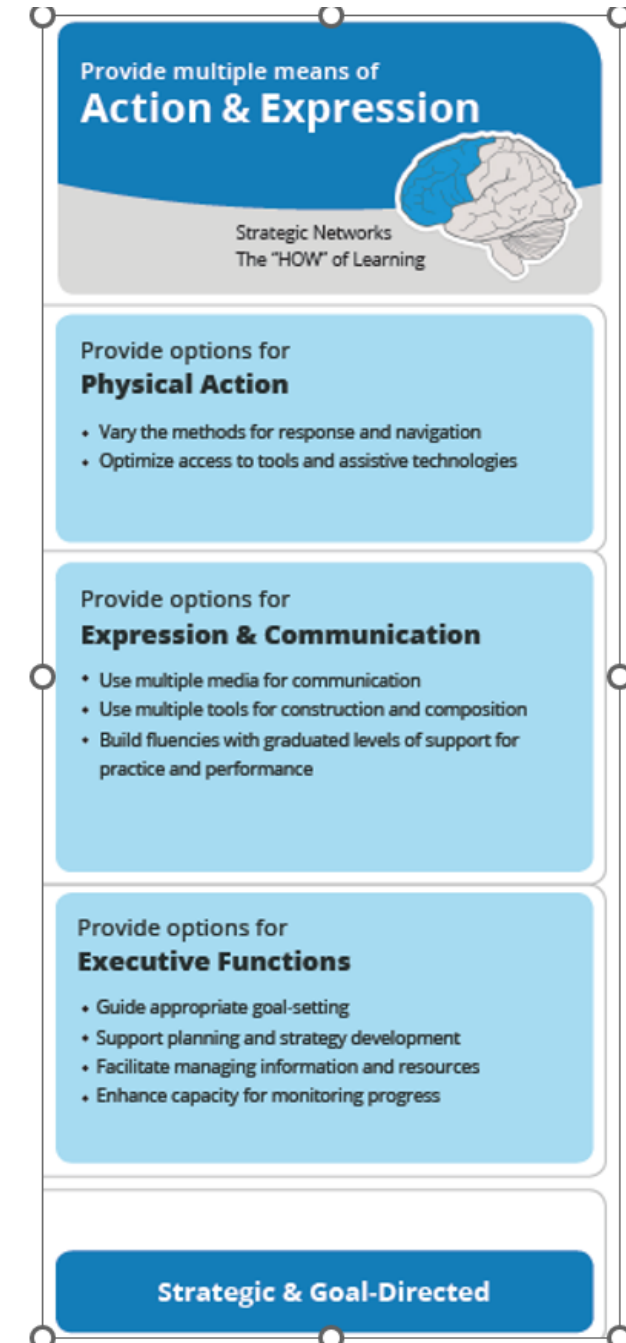
- Allow use of tech while ensuring patient confidentiality⁵
 - digital pens
 - read and write, Kurzweil, or Word Q software
 - noise cancelling headphones for concentration in charting
 - mobile technology for dictation and recording

Expression: ALLOW TOOLS TO SUPPORT COMMUNICATING

- Allow writing technologies to support charting and other documentation, e.g.:
 - Medical spell check and dictionary software or devices ⁸
 - Dragon medical dictation software ⁸
 - Antidote software for grammar & translation ⁵
 - Word prediction feature ⁵

Executive function: SUPPORT DEVELOPMENT OF SELF-REGULATION

- Place clocks on the walls in main workspaces to support time management⁸
- Scaffold student goal setting ⁶
- Encourage use of note-taking and to-do apps ^{5 9}
- Allow multiple media for clinical reflections (e.g. audio/video) ⁵
- Support autonomous scheduling & time management using apps/calendars ^{7,9}
- Negotiable deadlines (e.g. collaboratively decided) and “negotiated time-outs” ⁴
- Use of checklists/flowcharts for repeated or procedural tasks ^{5,8}



Toolkit link:

<https://adaptech.org/internship-toolkit/>

Other stuff:

[Podcast Goodwin University on UDL in clinical ed \(Dr. Laura Fanelli\) \(Oct 23\)](#)

[Think UDL podcast and texthelp product website](#)

UDL mythbusting – what is it NOT?

- It is NOT watering down the objectives
- It will not eliminate the need for accommodations
- It is not differentiated instruction
- It is not a prescriptive formula

Bottomline: Recipe for success

Essentials:

Nice secretary 😊

Motivated/open/flexible teacher and site staff

2024-standard technology

Would be nice to have...

Communication between stakeholders

Policy that supports compliance in both institutions

CHANGE

*...needed a new
metaphor...*



Thanks Caroline!

CHANGE



Can be slow...



Can be very fast ...



Is most effective when
top-down & bottom up
efforts meet



As the "helm"... what can
you do....?



Empower and believe in your paddlers

Patch the boats when and where you can

Cultivate advocates and leaders (both teacher and student)



The bottom line: we need each other!
How can we work together to progress toward more inclusive
working and learning environments in both settings?

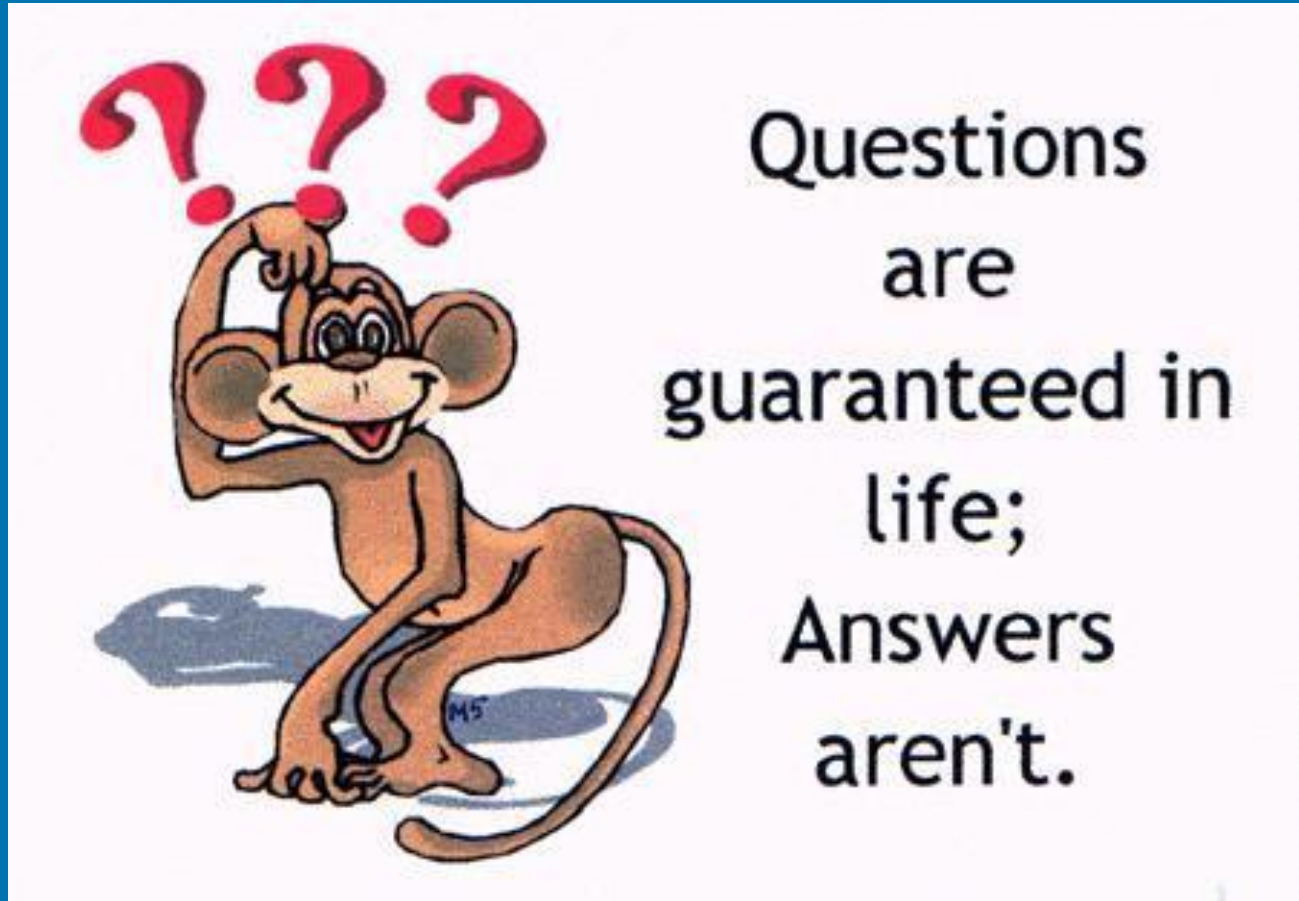


Together, we can do hard things...

Acknowledgements: Alice Havel & Susie Wiseman,
Catherine Soleil and Laure Galipeau, Sharon Coyle,
Caroline Haddad, Maxwell Jones, and Rae Gropper

THANK YOU

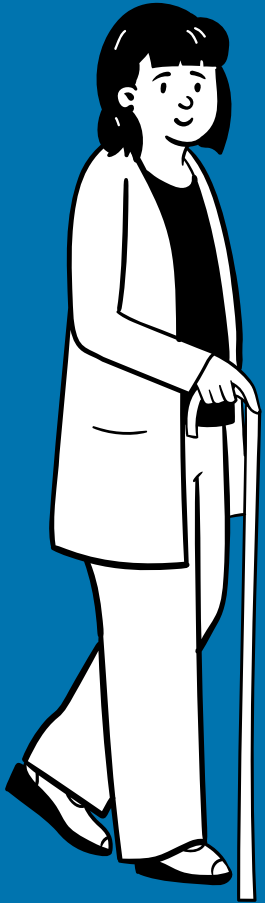
Q & A



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Case study #1

Accommodation questions



Full circle:

What should I have done with “Lisa”...?

Context: 4 weeks into 7 week clinical Ed course, I notice the student walking out of the clinical site with a cane.

- **No policy**
- **No information or disclosure from the student**
- **Physically demanding clinical context at times, assisting patient transfers (i.e. Moving patients) and guarding patients for safety is part of the competency ...**
- **Student is bright, knows her stuff, is performing well in the course so far.**

Consider varied perspectives:
Group exercise

Clinical coordinator

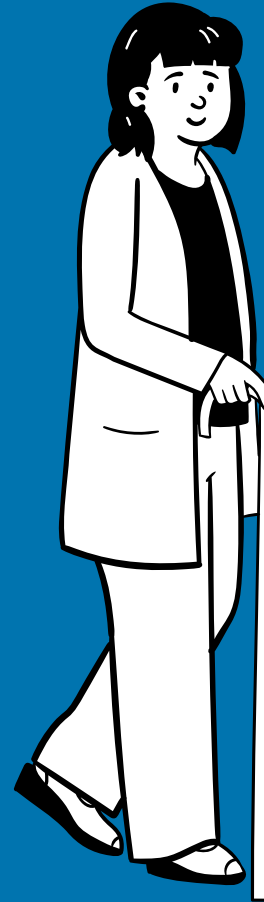
(Client)

Clinical coordinator

Clinical teacher (supervisor)

Accessibility officer

Site supervisor



Lisa herself

Each group consider one perspective – think, pair, share
Each group take perspective of one stakeholder & consider:

- *What feelings or concerns might they have?*

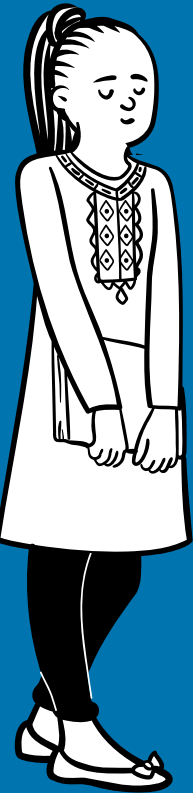
What are the questions they are asking?

What are the factors driving their decisions & actions?

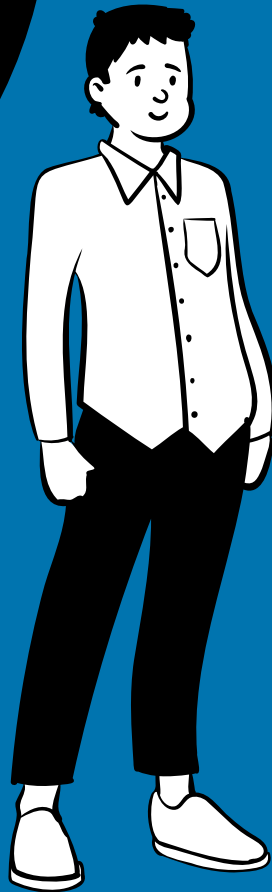
- 1. Lisa herself**
- 2. Clinical teacher (supervisor)**
- 3. Accessibility officer**
- 4. Site supervisor**
- 5. Clinical coordinator**
- 6. (Client?)**
- 7. Anyone else?**

Case study #2

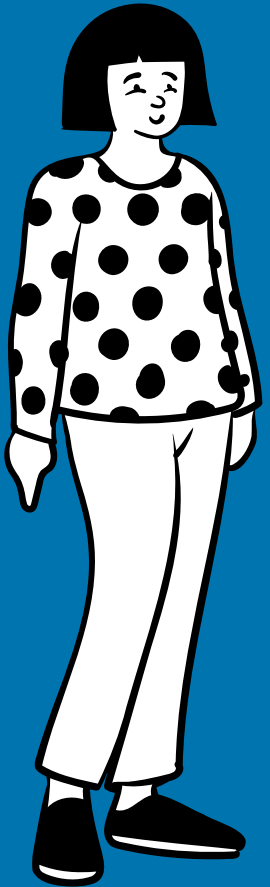
UDL



Marie: self-described as shy, hates being put on the spot, freezes when asked questions in front of the group, but does fine one on one with clients



John: fidgety and restless, very active in sports but has not had time to participate recently because of heavy load, has to work part time



Sarah: older student, has two school-aged children at home, first generation immigrant, first language is Spanish, second is English, third is French. Struggles with understanding at times but manages okay with clients

Case study #2

UDL



How can the teacher/clinical instructor design a learning environment that will support all of them without having to design a specific curriculum for each one...? How can the institution support the teachers/clinical supervisors to support these students?

References

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