



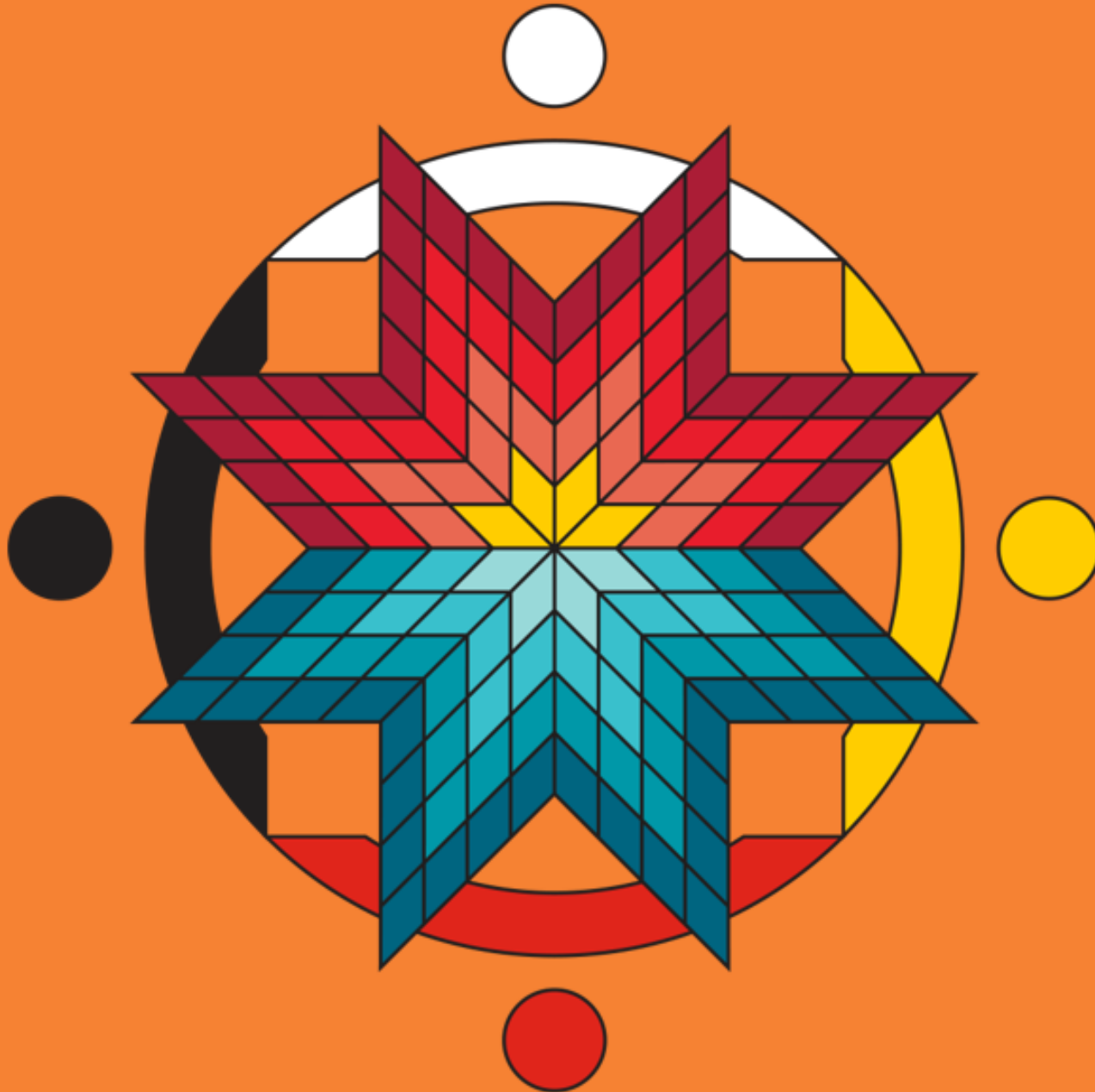
TEACHING &
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An Evolving Approach to UDL: Exploring Faculty's UDL Mindset, Practices, and Barriers to UDL Implementation in the CPLS

Sarika Narinesingh, Anne Song, Sharon Hauck, Elena Chudaeva, and Raj Khatri





Land Acknowledgement

George Brown College is located on the traditional territory of the Mississaugas of the Credit First Nation and other Indigenous peoples who have lived here over time.

We are grateful to share this land as treaty people who learn, work and live in the community with each other.

[Learn more about our land acknowledgement.](#)



June 29, 2023



AGENDA

- Literature Review & 'UDL Mindset'
- Our UDL Project & Research Questions
- Study Design & Results
- Limitations & Future Research
Directions
- Discussion

Universal Design for Learning at a Glance

Universal Design for Learning (UDL) is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn (CAST, 2023).

CAST's UDL guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities.

Source: <https://udlguidelines.cast.org/>



Provide multiple means of Engagement



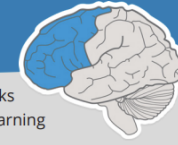
Affective Networks
The "WHY" of Learning

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)

- 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)

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)

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)

Goal

Expert learners who are...

Purposeful & Motivated

Resourceful & Knowledgeable

Strategic & Goal-Directed



An Evolving Culture around UDL



A SoTL Study

The Scholarship of Teaching and Learning (SoTL) has three main objectives:

- **Improve** student learning
- **Conduct scholarly examination** of the effectiveness of different methods of teaching.
- **Make the results of this analysis readily available** to others.

Source: <https://isotl.ctlt.ubc.ca/about/sotl/>



Our UDL Research Project

Explore faculty members' **UDL mindset and practices**, as well as **barriers to their UDL implementation** at George Brown College's Centre for Preparatory and Liberal Studies (CPLS) to inform better institutional practices and better support faculty's UDL implementation.

UDL Mindset: Principles, Not Checklist

1. The belief that each learner within a given context will have **varying learning preferences, abilities, interests, thought-processes, needs, and emotional responses** that impact their learning experiences.

2. The belief that the role of the teacher is to **guide learners** to become independently motivated, resourceful, and goal-oriented to **support self-directed lifelong learning**.

3. The belief that teachers should design courses, assessments, and curricula with the **goal of reducing barriers to learning for every learner**.

4. The belief that the different barriers to learning that students experience can and should be reduced by the teacher through **inclusive design of courses, assessments, and curricula**.

5. The belief that **giving students choice** regarding the way they demonstrate what they have learned **does not reduce academic rigour**.

6. The belief that student voice is critical, and it is important to **constantly reflect on and make changes** to one's teaching practices based on student feedback throughout the learning experience.

Which of these points is most top of mind when you teach or interact with learners?

1. The belief that each learner within a given context will have **varying learning preferences, abilities, interests, thought-processes, needs, and emotional responses** that impact their learning experiences.

2. The belief that the role of the teacher is to **guide learners** to become independently motivated, resourceful, and goal-oriented to **support self-directed lifelong learning**.

3. The belief that teachers should design courses, assessments, and curricula with the **goal of reducing barriers to learning for every learner**.

4. The belief that the different barriers to learning that students experience can and should be reduced by the teacher through **inclusive design of courses, assessments, and curricula**.

5. The belief that **giving students choice** regarding the way they demonstrate what they have learned **does not reduce academic rigour**.

6. The belief that student voice is critical, and it is important to **constantly reflect on and make changes** to one's teaching practices based on student feedback throughout the learning experience.

Mentimeter

Go to menti.com and enter the code **6492 1339** or use this QR code:



Literature Review

Mindset preceding implementation: Fovet (2018); Gidden & Jones (2021)

Survey:

Hills et al. (2022); Rao et al. (2020); the Inclusive Teaching Strategies Inventory (MRSEC Education Group, 2022); Inventory of Inclusive Teaching Strategies (University of Michigan Center for Research on Learning and Teaching, 2022)

Barriers:

Anstead (2016); Galkiene & Monkeviciene (2021); Hills et al., (2022); Humber (2020); Lachheb et al. (2021); Long (2018); Martin (2016)

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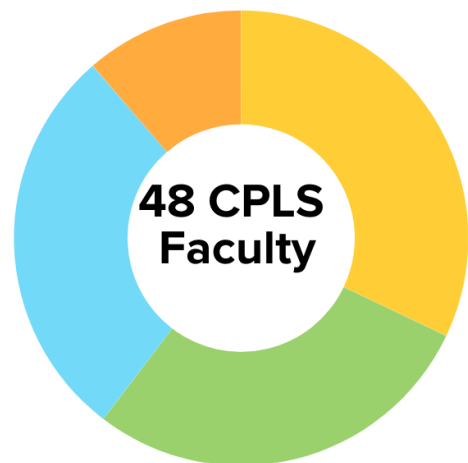
Research Questions

1. To what extent do CPLS faculty have and exemplify a “UDL mindset”?
2. What UDL-aligned teaching practices are faculty applying in their teaching spaces?
3. What are the barriers to UDL implementation?
4. From the perspective of faculty, what institutional practices or strategies would encourage UDL implementation?

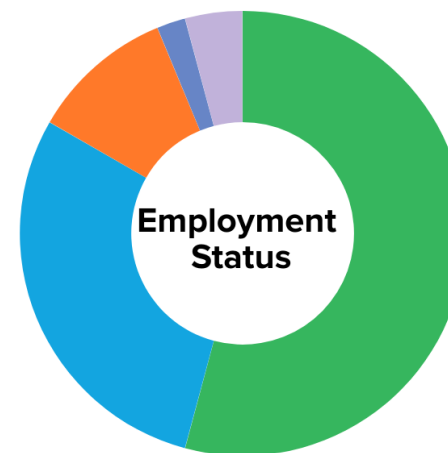
Study Design

	Instruments or Sources	Procedures (in phases)	Analyses	Research Questions
Mixed methods Design (Creswell & Plano Clark, 2017)	Survey (<i>n</i> = 48)	Phase 1	Microsoft Forms analytics and analysis in Excel	1, 2, 3, & 4
	Focus Groups (<i>n</i> = 13)	Phase 2	Thematic analysis: transcribed and coded the data; identified themes (Braun & Clarke, 2022).	1, 2, 3, & 4

Participants' Demographic Information



- Department of English and Communication: **17**
- School of Work and College Preparation: **15**
- School of Liberal Arts and Science: **15**
- School of English as a Second Language and Immigrant Education: **6***



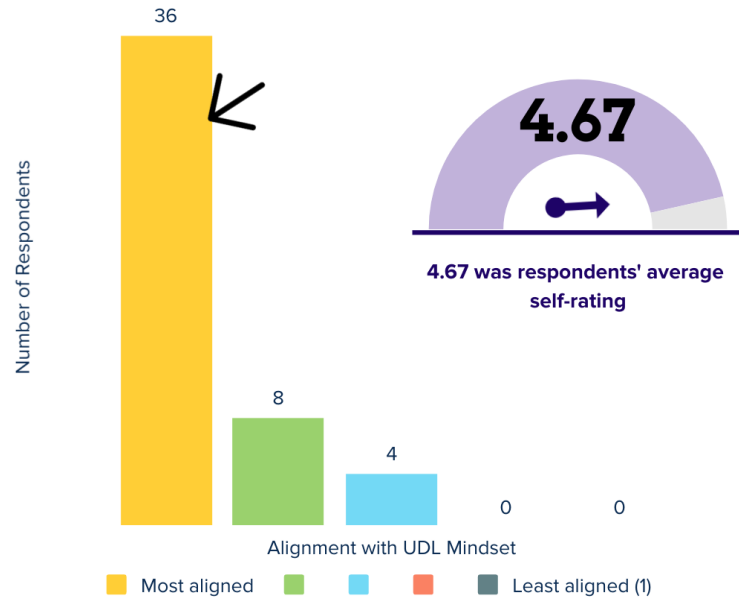
- Full-time: 26
- Partial-load: 14
- Part-time: 5
- Sessional: 1
- Prefer not to disclose: 2

Research Question 1

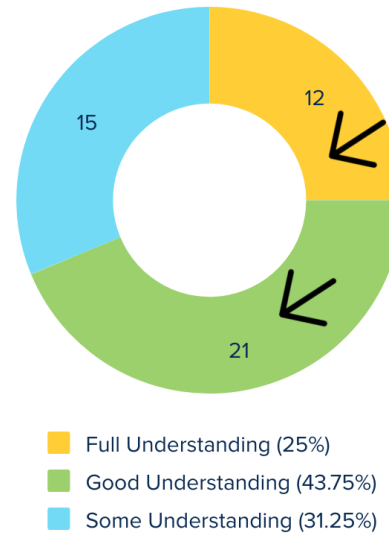
To what extent do CPLS faculty have and exemplify a UDL mindset?

Respondents' Self-Reported UDL Mindset and Understanding of UDL

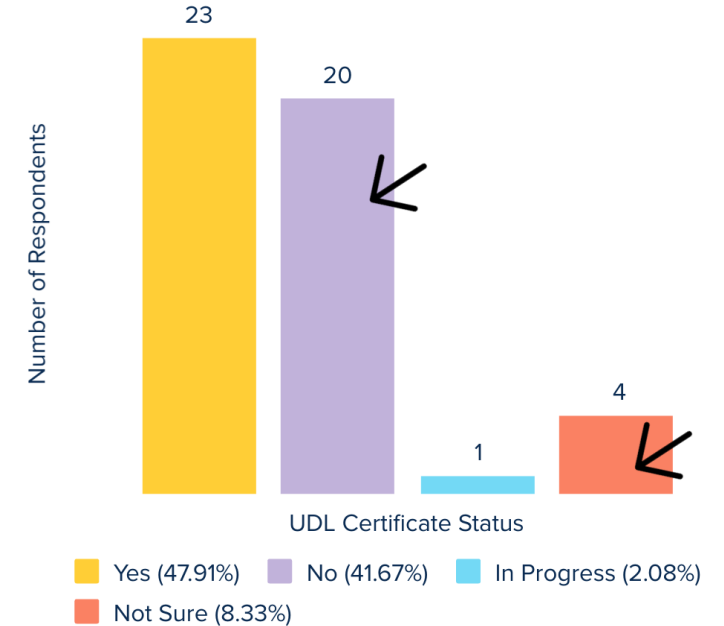
Self-Reported Alignment with a UDL Mindset



Self-Reported Understanding of UDL

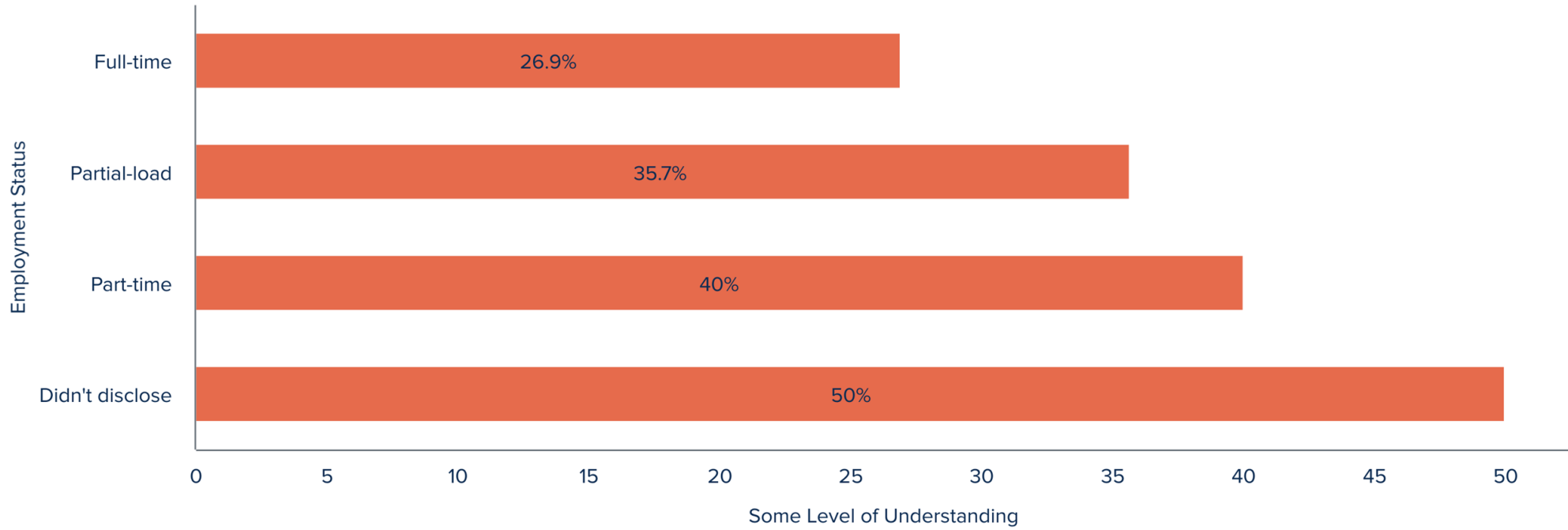


UDL Certificate Status



"Some" Level of UDL Understanding by Employment Status

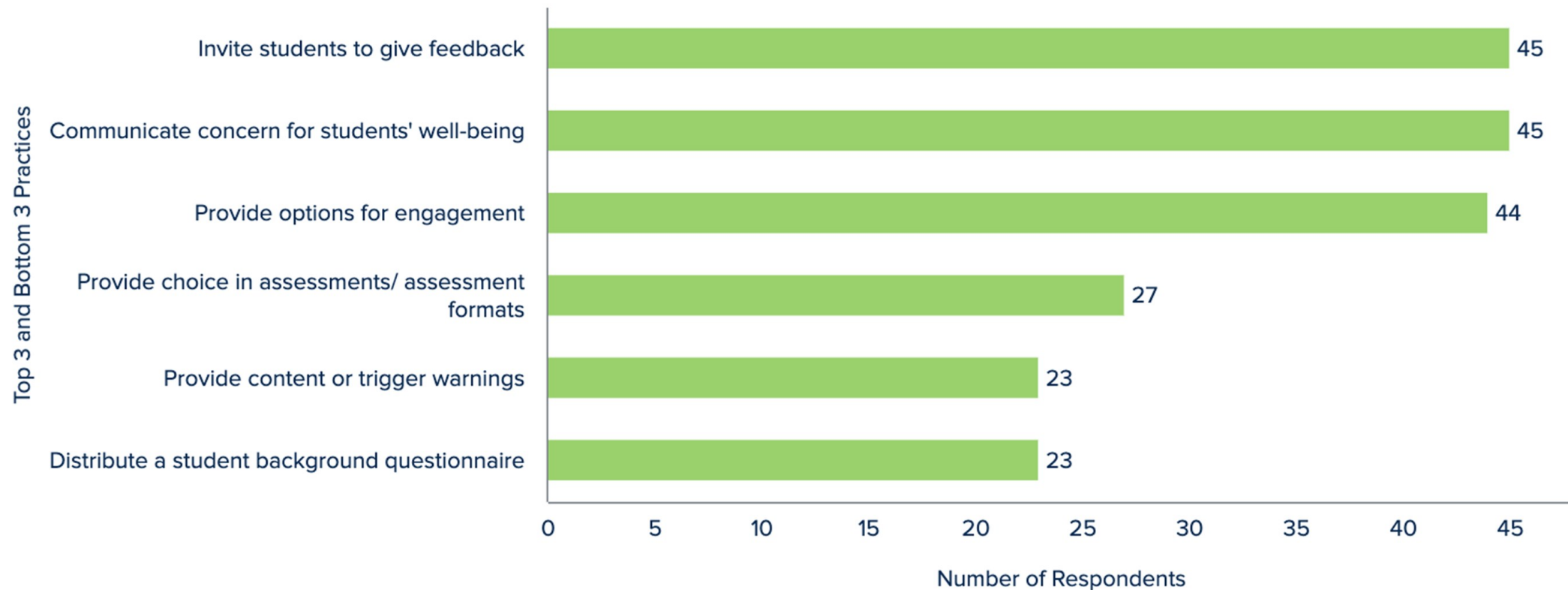
Self-Reported Some Level of Understanding by Employment Status in Percentages



Research Question 2

What UDL-aligned teaching practices are faculty applying in their teaching spaces?

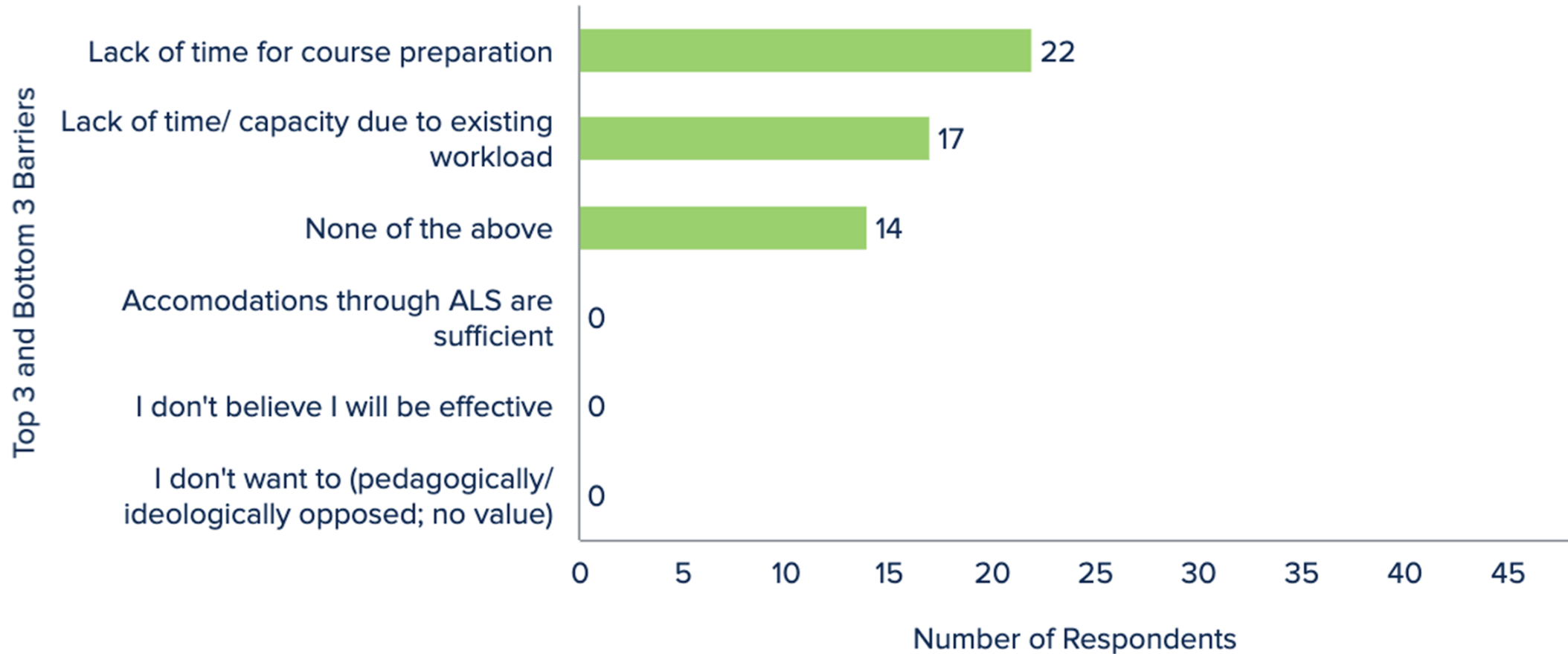
UDL-Aligned Teaching Practices Faculty are Applying



Research Question 3

What are the barriers to UDL implementation?

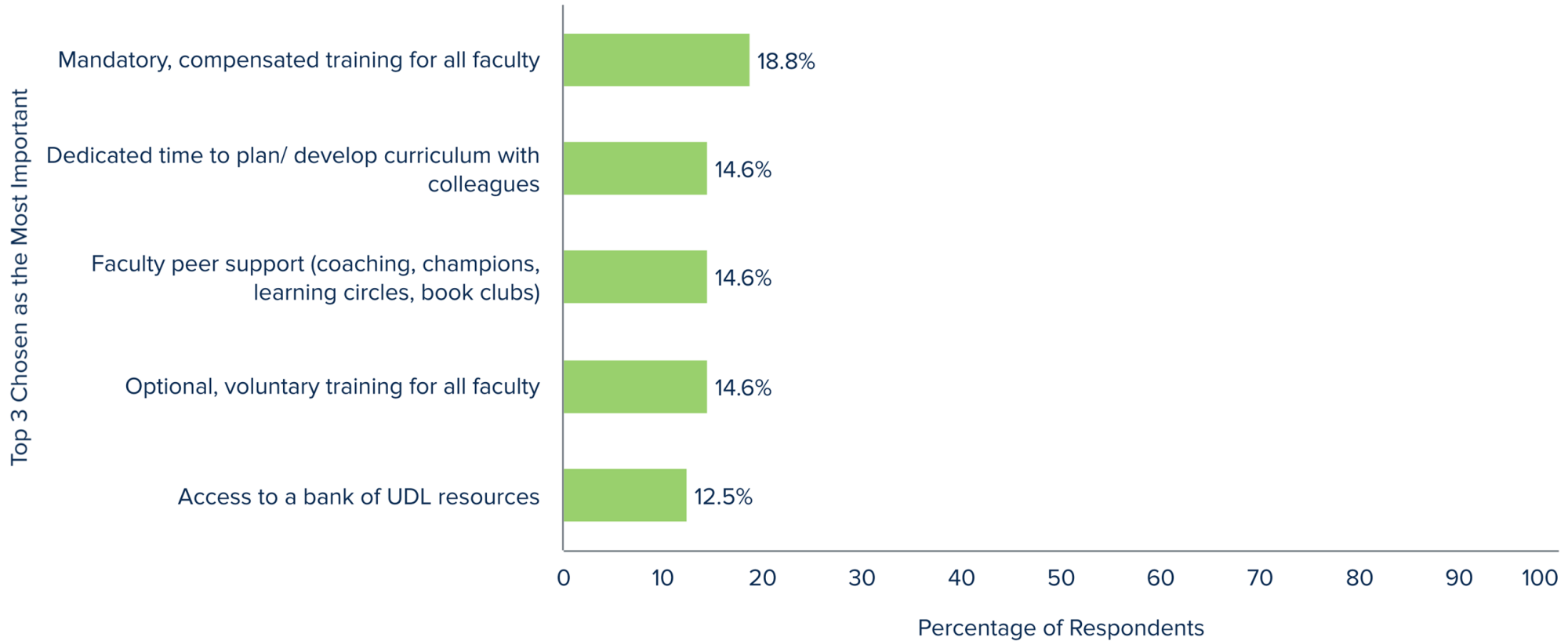
Barriers to UDL Implementation



Research Question 4

From the perspective of faculty, what institutional practices or strategies would encourage UDL implementation?

Support for Faculty Learning and Adoption of UDL



Recommendations

- 1. Compensate faculty** for the time it takes to:
 - learn UDL.
 - implement UDL/ "UDL-ize" their courses according to their program areas
 - build and foster a community of practice.
- 2. Continue promoting a foundation of good teaching practices** (e.g., outcomes-based teaching and learning, backwards design, etc.).
- 3. Develop a communication plan** to inform the college community of the evolving approach to UDL as a mindset rather than a checklist.

Study Limitations

The survey instrument:

- Lack of instrument reliability.
- Self-reporting (Nunan, & Bailey, 2009).

Study participants:

- Limited sample size (O'Leary, 2021).

Member checking:

- Lack of member checking (Braun & Clarke, 2022).

Future Research Directions

- Develop a reliable and validated survey instrument.
- Conduct member checking of interviews.
- Survey across the college for greater participation.
- Audit course delivery & content to assess UDL implementation.
- Incorporate student perceptions of UDL implementation.

Discussion (20 minutes)

Please share your experiences in response to the following 3 questions:

1. Our study found that "**none**" was reported among the three most common barriers to UDL implementation. What do you think about this finding?
2. What is your experience of UDL?
3. What existing supports enable you to implement UDL?

References

- Anstead, M. E. J. (2016). *Teacher perceptions of barriers to Universal Design for Learning* [Doctoral dissertation, Walden University]. Walden Dissertations and Doctoral Studies Collection at ScholarWorks.
<https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=3002&context=dissertations>
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage Publications.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Fovet (2018) Making it work! Addressing teacher resistance in systemic UDL implementation across schools. In: N.K. Jangira, S. Limaye, & S. Kapoor (Eds.) *Inclusive Education: Practitioners' Perspectives*. Mumbai: School Inclusive Education Development Initiative (pp. Chapter 31). Mumbai: School Inclusive Education Development Initiative.
- Galkiene & Monkeviciene (2021) Chapter 7: Development of knowledgeable and resourceful learners. In A. Galkienė & O. Monkevičienė (Eds.), *Improving inclusive education through Universal Design for Learning* (pp. 145-186). Springer.
<https://doi.org/10.1007/978-3-030-80658-3>
- Gidden & Jones (2021) Examining the impact of Universal Design for Learning (UDL) on minimizing academic accommodations in post-secondary: A literature review. *Bow Valley College Research & Publications*, 1-29. <http://dx.doi.org/10.11575/PRISM/38840>
- Hills, M., Overend, A., & Hildebrandt, S. (2022). Faculty perspectives on UDL: Exploring bridges and barriers for broader adoption in higher education. *The Canadian Journal for the Scholarship of Teaching and Learning*, 13(1), 1-18.
<https://doi.org/10.5206/cjsotlrcecea.2022.1.13588>

References (cont'd)

- Humber, L. K. (2020). *Teachers' perceptions of the Universal Design for Learning concept in teaching English-language arts in a selected title I school* [Doctoral dissertation, Houston Baptist University]. DARIUS Dissertation Archive Repository Information Usage Service. <http://hdl.handle.net/20.500.12262/220>
- Inclusive teaching. (2022). *Inventory of Inclusive Teaching Strategies*. LSA. <https://sites.lsa.umich.edu/inclusive-teaching/inventory-of-inclusive-teaching-strategies/>
- Lacheb, A., Abramenka-Lachheb, V., & Huber, L. (2021). Challenges and opportunities in adhering to UDL principles to design online courses. *Journal of Applied Instructional Design*, 10(1), 1-12. <https://dx.doi.org/10.51869/101alvallh>
- Martin, C. A. (2016). *How do teachers overcome the perceived barriers of using the Universal Design for Learning?* [Master's capstone, Georgia State University]. Public Health Capstone Projects. https://scholarworks.gsu.edu/iph_capstone/26
- MRSEC Education Group. (2022). *Inclusive Teaching Strategies Inventory*. <https://education.mrsec.wisc.edu/wp-content/uploads/sites/283/2020/05/Inclusive-Teaching-Strategies-Inventory.pdf>
- Nunan, D., & Bailey, K. M. (2009). *Exploring second language classroom research: A comprehensive guide*. Heinle Cengage Learning.
- O'Leary, Z. (2021). *The essential guide to doing your research project*. Sage Publications.
- Rao, K., Ok, M. W., Smith, S. J., Evmenova, A. S., & Edyburn, D. (2020). Validation of the UDL Reporting Criteria with extant UDL research. *Remedial and Special Education*, 41(4), 219–230. <https://doi.org/10.1177/0741932519847755>



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THANK YOU!

Conference Agenda

START	END	DESCRIPTION	LOCATION
8:00 AM	8:55 AM	Registration & Breakfast	Atrium
9:00 AM	9:30 AM	Land Acknowledgement, Hand Drum and Opening Remarks with Dr.Gervan Fearon	SJC 406 with online option
9:30 AM	10:45 AM	Keynote Speaker: Brenda McDermott	SJC 406 with online option
10:45 AM	11:00 AM	Music and Move to Session 1	
11:00 AM	11:45 AM	Concurrent Session Block 1	On-campus with online option
11:45 AM	12:50 AM	Luncheon	
1:00 PM	2:00 PM	Plenary Conversation with John Weigelt	SJC 406 with online option
2:00 PM	2:15 PM	Music and Move to Session 2	
2:15 PM	3:00 PM	Concurrent Session Block 2	On-campus with online option
3:00 PM	3:30 PM	Wine & Cheese Social	Atrium
3:30 PM	4:00 PM	President Awards & Concluding Remarks	Atrium

