



# Connecting Communities, Connecting Campuses

A Comparative Analysis of Student Outcomes Between Face to face (f2f)  
and Video Conference Statistics Course results

A Six Year Longitudinal Study

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# Northwest Territories Location in Canada



# Northwest Territories, Canada

West central Canadian territory  
Includes arctic and sub-arctic regions  
Geographical Area - 1.34 million square kilometers  
Population – 41,000  
33 communities  
1 reservation

Aurora College – 3 campuses  
& 19 community learning centers



Approximately decade ago...  
high arctic programming was cut at Aurora Campus



# To Blend Learning or Not to Blend...

## **Concerns existed due to:**

- ✓ students' learning styles and preferences, cultural differences and diversities in ways of knowing
- ✓ limited use of technology enabled learning in School of Business and Leadership classes
- ✓ Connectivity issues related to band width issues

## **Necessity dictated:**

A need to balance equitable access to programming for all students with funding cutbacks

# Would Blended Learning Work?

We asked ourselves a couple of questions before embarking on this change:

Could we move from a traditional face to face delivery format to a blended learning environment while holding student outcomes constant?

**And**

Could we ensure student success was not compromised between students that were face to face and students that were at a distance from their instructors?

Yes we could, however, this would take time, effort & investments...



# Timeline

## Evolution of Technology Enabled Learning in SBL

2011 - loss of high arctic programming due to fiscal restraint

2012 - In kind partnership resources accessed through MOU with BDIC - Pilot

2013 - First cameras in the first two classrooms

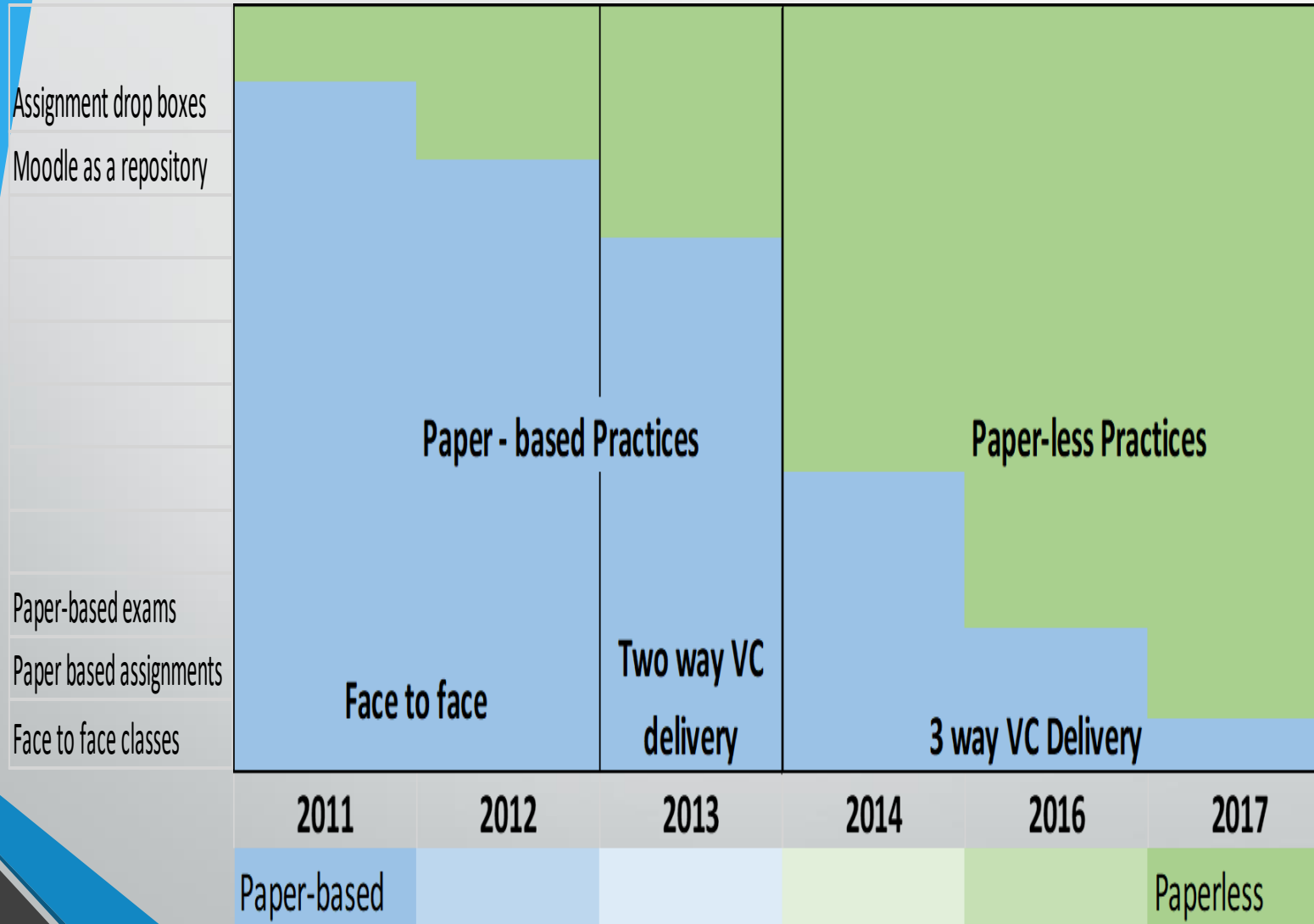
2014 – Smartboard arrives in first classroom – three way conferencing

2015 – Upgrades to internet access and high speed VC requirements

2016 – Additional classrooms received Smartboards

2018 – Interactive Smartboards added in all six classrooms

# Effort – the How Traditional to Blended Courses



## Student Supports:

- ✓ VC Tutorial supports
- ✓ Email supports
- ✓ Phone supports
- ✓ Electronic supports (access to textbook websites),
- ✓ Skype Meetings

## Teaching Approaches:

- ✓ Redundancy in information sources
- ✓ Recording of Lectures & posting on Moodle
- ✓ Electronic textbook access and use

## Pedagogical Considerations:

- ✓ Intra-campus work groups
- ✓ cross campus presentations
- ✓ embedding of technology enabled learning
- ✓ Use of Groups and forums (Moodle)
- ✓ Development of master students
- ✓ Embedding of video links

## Delivery:

- ✓ Video Conferenced classes
- ✓ Technology Enabled Orientation
- ✓ Embedded videos
- ✓ Video-taped lectures
- ✓ Use of Smartboards (for communication, transmission and lecture dissemination)

## Assessments:

- ✓ Combination of Paper-based and electronic assignments
- ✓ Paper-based exams
- ✓ Provisions for multiple assignment attempts for e-assignments
- ✓ Electronic assignments (formative and summative evaluations);



# Investments

6 technology enabled classrooms (2 per campus)

## Biggest Challenges:

- Having one instructor across three campuses
- Necessary innovations were required to create connections and supports:
  - ✓ Net ops and screen sharing
  - ✓ Smartboards (communication, transmission & lecture dissemination)
  - ✓ Email, VC tutorials, Skype meetings, phone supports
  - ✓ Electronic supports (access to textbook websites), electronic assignments (formative and summative evaluations); video links, and the use of forum and groups in Moodle
  - ✓ Reliance on master students at remote sites

# Lessons Learned

- Teaching supports in blended environments require at least 4 times more time than traditional approaches
- Course development took 6 times longer to implement than traditional methods
- Orientations for students was essential
- Learner supports require redundancy based on learner types and design methods
- Relationship and connectedness is essential in ensuring high levels of student success
- It takes a strong team of people to implement disruptive institutional change

# Unforeseen Benefits

1. Others wanted to play in our sandbox – prompted grass roots, bottom up innovation
2. Disruptions were “evidenced based” and “student centered” because they were coming from faculty and front line staff
3. Disruptive technologies were contagious
4. Reinforced student-centric “a class of one” philosophy – *every student matters*



# Things I want you to know

1. Blended learning takes a LOT of time to implement
2. Equity & access is possible in higher education for remote populations (we are doing it)
3. Change doesn't happen overnight – it took our team 7 years (and we're not done yet...)
4. Student outcomes can be held constant across blended environments





Mahsi Cho  
Merci  
Thank you!

Questions?

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