



Blended and Online Learning and Teaching (BOLT)

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ADLC

Alberta Distance
Learning Centre

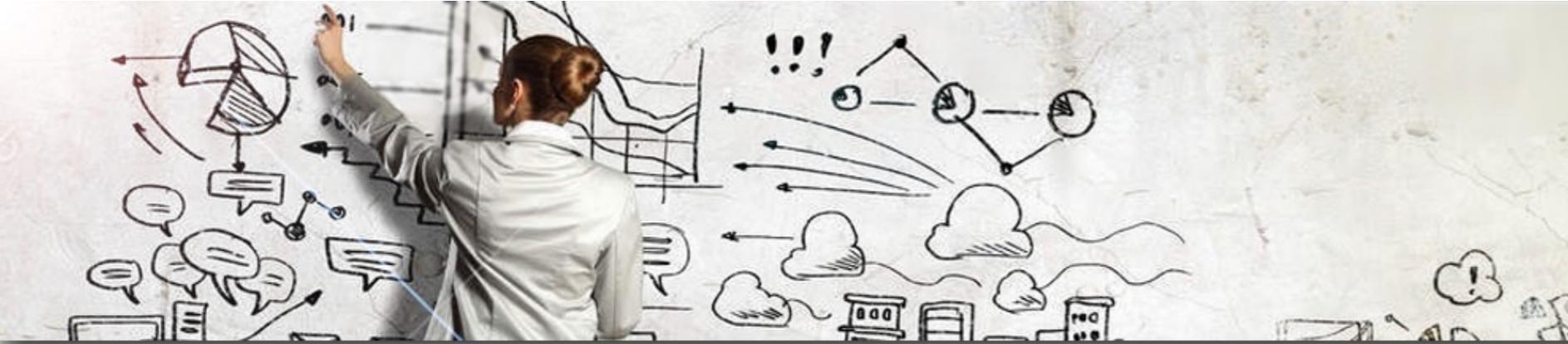


**Athabasca
University**



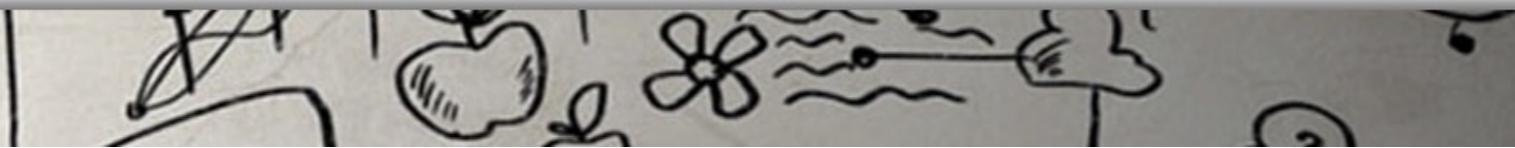
WHY? Evidence-based Professional Development: Introducing the BOLT Program

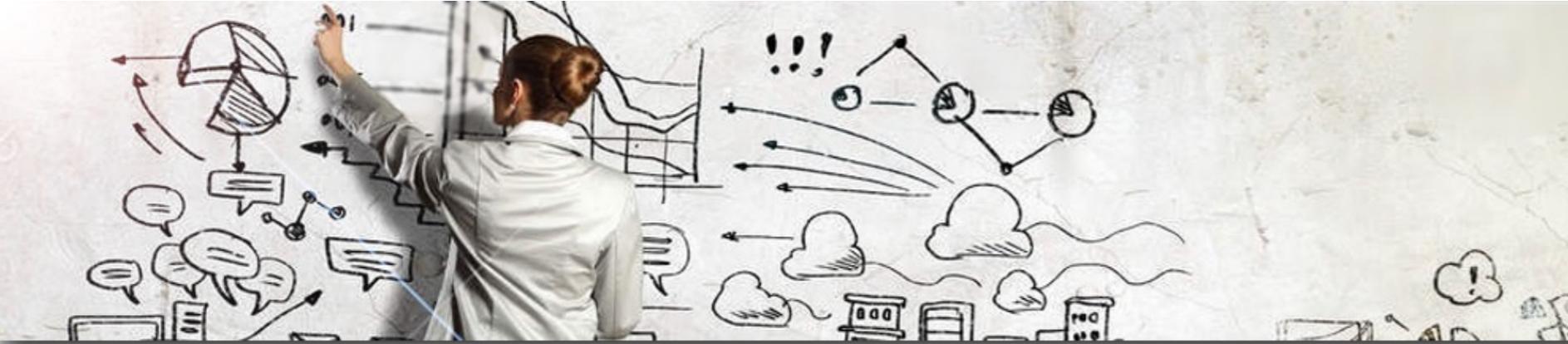
Dr. M. Cleveland-Innes, Chair, Centre for Distance Education, Athabasca University



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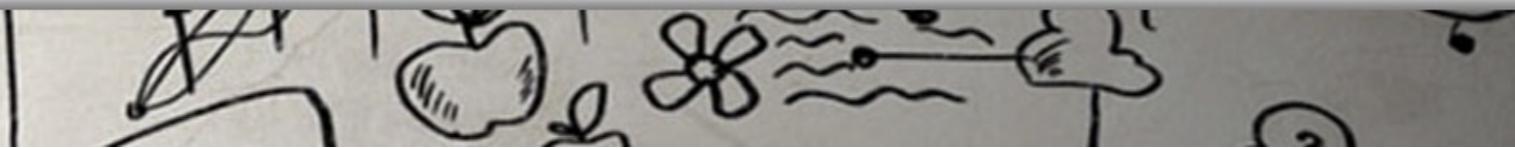
Basic research (also called pure research or fundamental research) is a systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena. Basic research is executed without thought of a practical end goal, without specific applications or products in mind.

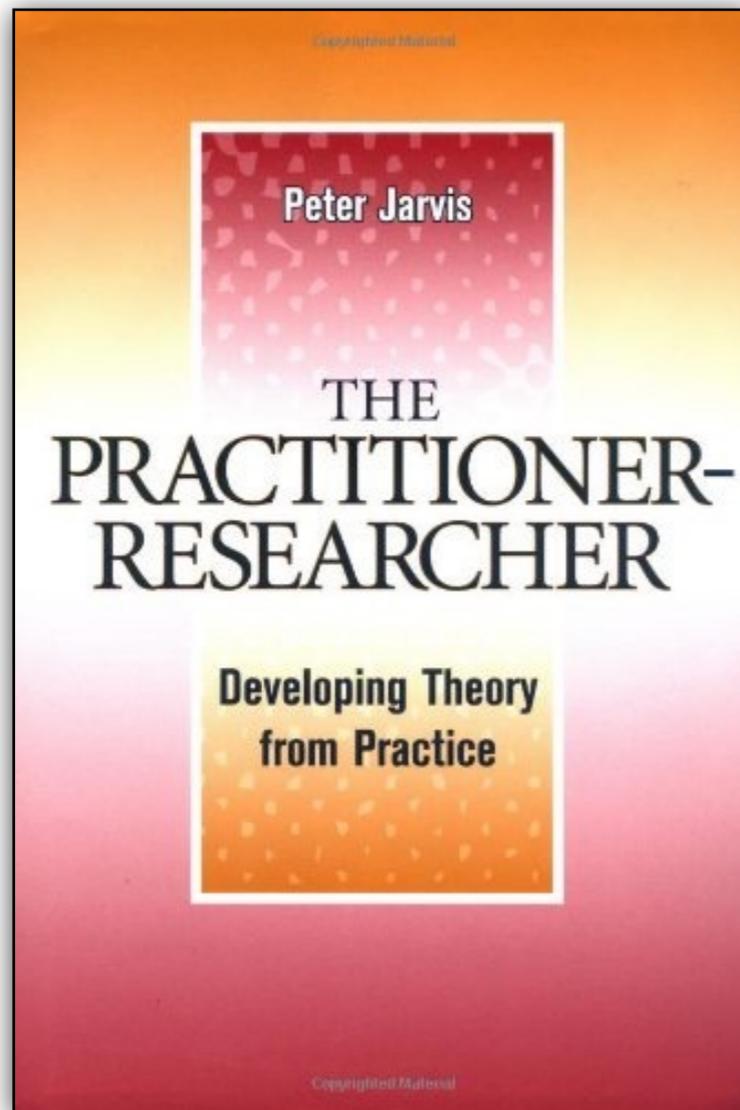




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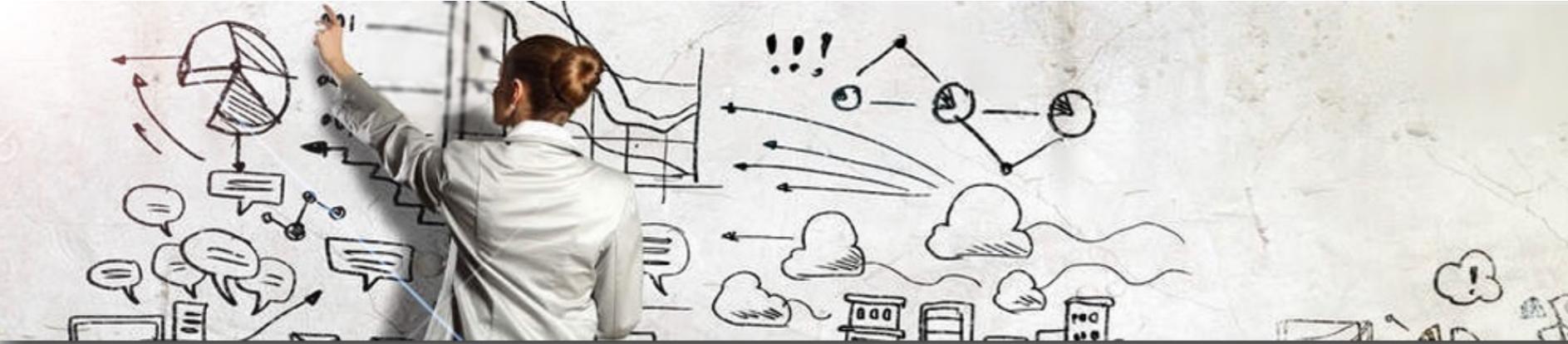
Applied research refers to scientific study and research that seeks to solve practical problems. Applied research is used to find solutions to everyday problems, cure illness, and develop innovative technologies.





Dr. Peter Jarvis

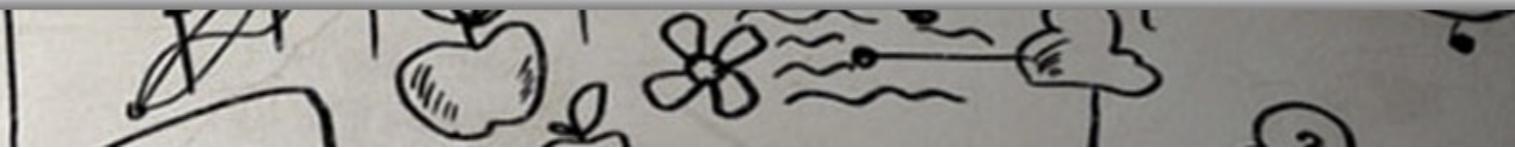
Practitioner research involves one or more people who are practitioners (e.g. Administrators, Designers, Teachers) and are researching that practice. Unlike some other forms of research, practitioner research is intended to solve problems and enhance practice (rather than developing theory, for example).



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Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. Teachers College Press.

Cochran-Smith, M., & Lytle, S. L. (2011). Commentary: Changing Perspectives on Practitioner Research. *Inquiry: Perspectives, Processes and Possibilities*, 4(02), 17-30.





NOW WHAT? Designing BOLT

Evidence-based professional learning
Inquiry-based applications
Research-in-practice going forward

Dr. Connie Blomgren, Assistant Professor, Centre for Distance Education, Athabasca University

Two Curricular Questions

1. How **is** the BOLT certificate and its curriculum addressing the professional learning needs of K-12 teachers?

2. **The corollary:**

How will these needs continue to be addressed?



How **is** the BOLT curriculum addressing the professional learning needs of K-12 teachers?

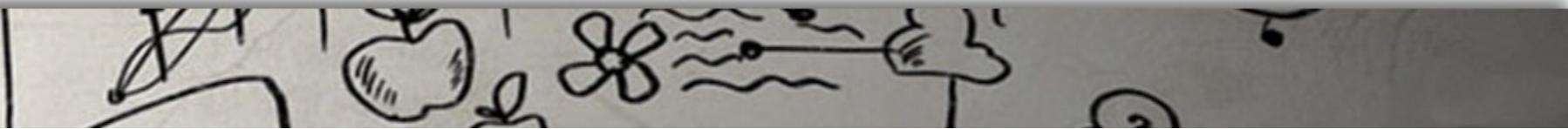
- Alberta - A national leader in Canadian K-12 education.
- Educational reform has been ongoing for over a decade:
 - 2013 Ministerial Order #001/2013
 - 2014 Learning and Technology Policy Framework (LTPF)
 - Further support for teacher PD and becoming an evidence-based teacher practitioner
 - Individual Professional Growth Plan (IPGP)
 - Alberta Teacher Association (ATA) Position Papers



BOLT & LTPF - Policy Direction 2

LTPF Policy Direction 2, Research and Innovation, states that: “Teachers... [will] read, review, participate in, share and apply evidence based practices to sustain and advance innovation in education.”

(Alberta. Ministry of Education, 2013, p. 23)





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Policy Direction 2:
Research and
Innovation



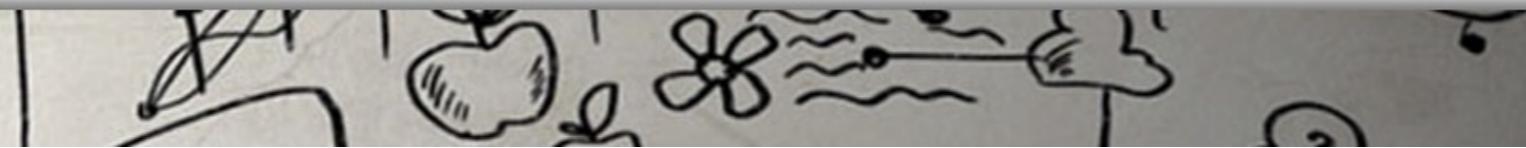
BOLT & LTPF - Policy Direction 2

3 outcomes for educators to:

- A. stay current with educational technology research;
- B. participate in and apply research to learning and teaching; and
- C. use data systems and evidence-based reasoning to monitor and support personalized, student-centred learning” (Alberta. Ministry of Education, p. 26)

Alberta. Ministry of Education. (2013). Learning and technology policy framework 2013.

Retrieved from <https://education.alberta.ca/media/7792655/learning-and-technology-policy-framework-web.pdf>





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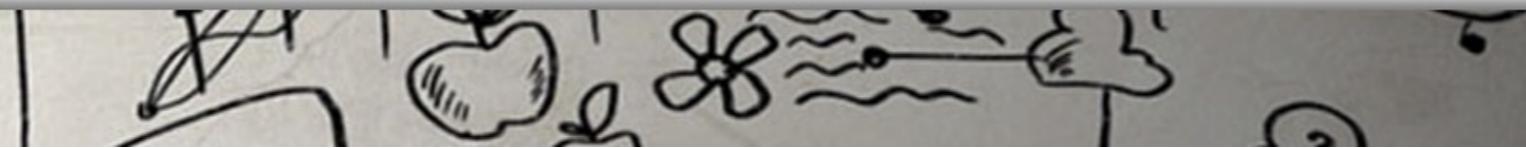
Policy Direction 3:
Professional
Learning



BOLT & LTPF - Policy Direction 3

LTPF Policy Direction 3, Professional Learning, states:
“Teachers... maintain and apply the knowledge, skills and attributes that enable them to use technology effectively, efficiently and innovatively in support of learning and teaching.”

(Alberta. Ministry of Education, 2013, p. 27)





BOLT & LTPF - Policy Direction 3

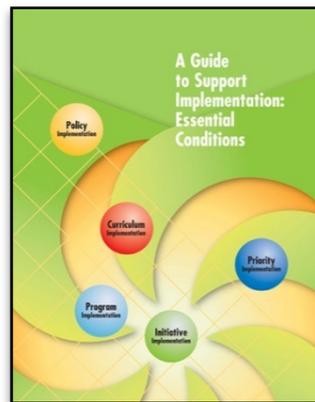
3 outcomes to develop digitally confident teachers that:

- A. are well prepared to use technology and digital resources innovatively and effectively for learning, teaching, leadership and administration;
- B. use technology and research to design personalized, authentic and student-centred learning opportunities to meet the diverse needs and interests of all students; and
- C. engage in professional growth opportunities that are broadened and diversified through technology, social media and communities of practice

Alberta. Ministry of Education. (2013). Learning and technology policy framework 2013.

Retrieved from <https://education.alberta.ca/media/7792655/learning-and-technology-policy-framework-web.pdf>

Professional Collaboration, Communities of Practice and Research



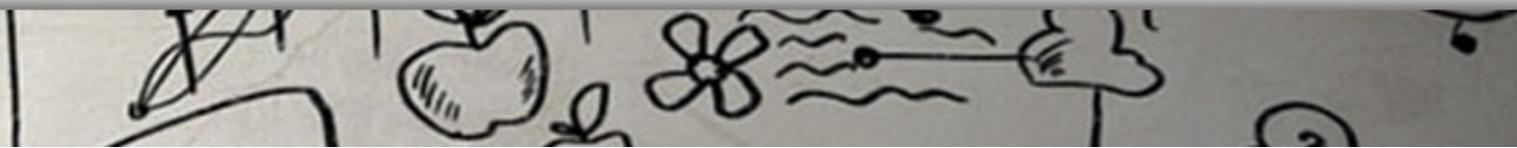
A Guide to Support Implementation:
Essential Conditions
(Edmonton Regional Learning Consortium, 2010)

Educational Research and Development
position paper
(Alberta Teachers Association, 2015a)

ATA Professional Development position paper
(Alberta Teachers Association, 2015b)



**The Alberta
Teachers' Association**



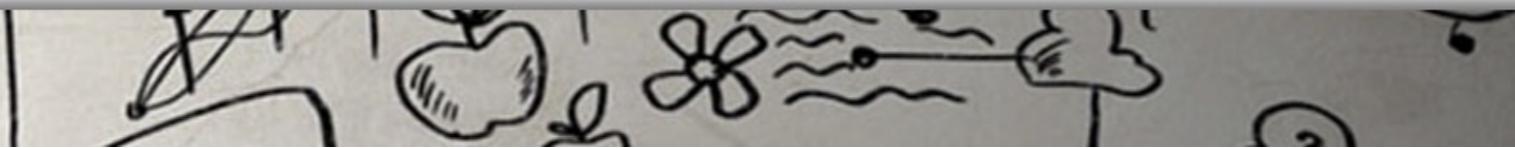


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The corollary:

How will these needs continue to be addressed?

- Iterative and responsive.
- Surveys.
- Data mining.
- Participatory aspects create a constant feedback flow.
- Instructor observations/intuitions for minor changes while modules are in-process.
- Topics & assignments allow BOLT participants to pursue research and theory as it directly applies to their lived experiences - within the offering of a module, or several, or over the entire certificate.

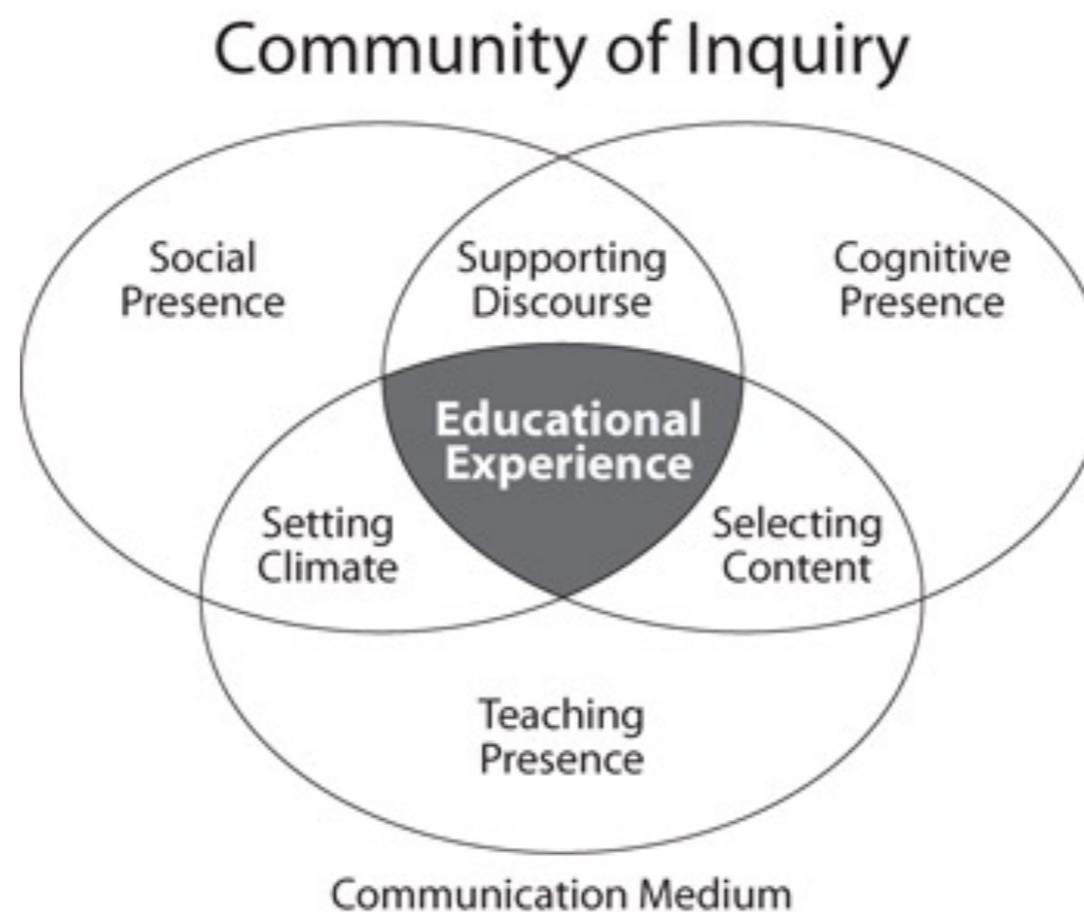




HOW? Blended & Online Learning & Teaching

Laurel Beaton, Partnerships & Innovation, Alberta Distance Learning Centre

Theoretical Framework



Course Redesign Planning

1. Redesign and re-conceptualize the course

2. Manage the content volume

3. Create a learning community

MDDE 621

Online Teaching in Distance Education

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671****BOLT
672****MDDE
621****BOLT
673**

Content:

- learning principles and learner characteristics, including 'special' learning needs;
- teaching behaviours and principles associated with learning, independent of the delivery medium;
- organizational roles required by technology use, which distance learning teachers, trainers and administrators may be expected to fill;
- professional development (PD) issues in online teaching and training;
- characteristics (strengths and weaknesses) of some available and emerging learning technologies; and,
- assessment and evaluation principles.

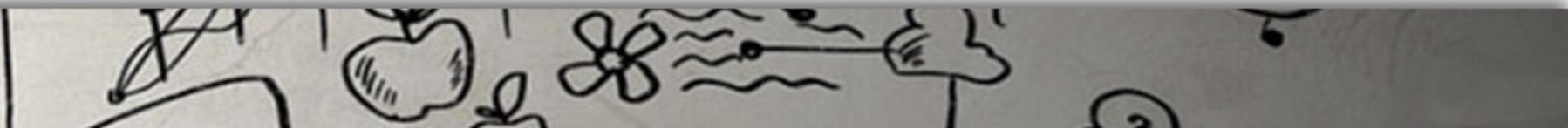
Conversion of MDDE 621 to Blended and Online Learning and Teaching 671, 672, 673

MDDE 621 Unit/topic	BOLT 671 (4weeks)	BOLT 672 (4weeks)	BOLT 673 (4weeks)
1 Elements of Online Teaching & Learning	X		
2 Learning theories & principles	X		
3 Teaching theories & principles*	X		
4 Professional Development (renamed & redefined Professional Concerns - ongoing 671, 672, 673)	Change to Professional Concerns (Part One): Professional Learning Networks - PLN	Professional Concerns (Part Two): PD online & nurture PLN	Professional Concerns (Part Three): Nurturing your PLN & online PD
5 Print, audio & video*		X	
6 Computer-based technologies			X
7 Internet*		X	
8 Computer mediated Communication (CMC)			X
9 Assessment & Evaluation			X



Learning Experiences and Assessment

BOLT 671 (4weeks)	BOLT 672 (4weeks)	BOLT 673 (4weeks)
Participation through discussion forums and synchronous sessions.	Participation through discussion forums and synchronous sessions.	Participation through discussion forums and synchronous sessions.
AU Library Assignment AU tutorials will be used to support the students Topic to research: "Community of Inquiry"	Short essay - Digital resident or visitor? David White's concept of digital resident or digital visitor. 1500 to 2000 word essay that analyzes three people on the four quadrants.	Wicked Challenges in K-12 Using the NMC Horizon Report K-12 Edition research topics considered "wicked challenges" for technologies-enhanced learning in K-12 context.
Option A: Research Critique Paper Option B: Deep Learning of Professional Context	Option A: Research Critique Paper Option B: Deep Learning of Professional Context	Research Paper



MDDE 603

Foundations of Instructional Design Systems Analysis and Learning Theory

**BOLT
674**

**BOLT
675**

**MDDE
603**

**BOLT
676**

Content:

- Perspectives on Teaching and Learning
- Behavioural Theories of Learning
- Cognitive Theories of Learning
- Constructivist Theories of Learning
- Roles of Motivation in Learning
- The Neuroscience of Learning
- Introduction to Systems Concepts and Soft Systems Analysis

MDDE 620

Technology in Education

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MDDE
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BOLT
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Content:

- Issues in distance education to which technology might apply as a delivery, administrative, student support, or learning tool.
- Operating characteristics, communications and interaction capabilities, and technical requirements of selected distance education technologies.
- Strategic planning models and approaches applicable to technology use in distance education and training.
- Principles of effective organizational management, development, and renewal, from the perspective of an agent of technological change in a K-12 environment.

Pilot Observations

Motivation: Teachers have a high desire to do very well despite their busy lives.

Initial “mental model”: expectations real and imagined (e.g. alignment of delivery models)

The shortened time frame creates a sense of urgency that requires:

- strong time management

- permission from self to seek extensions

- permission from self to complete work “adequately”

- acceptance that only so much can be accomplished (drinking from a fire hose metaphor)

- least confident going into the modules have been most successful

Observations

Discussion forums/assignments indicate active engagement with the content and research articles - *excitement about digital pedagogy*

New learning balanced with affirmations of their current professional practices
increased knowledge creates change and also enhances confidence

Desire by some to “audit” (credentials not needed i.e. already holds a Masters) but wants to learn about digital pedagogy within the parameters of a module and online learning community

money paid = commitment and a perception of value (by self or institutions e.g. Teacher Quality Service) unlike the *perception* of MOOCs (if a MOOC K-12 focus available)

Redefining Teacher PD - finding the middle ground of professional learning
(traditional PD vs. the full commitment of graduate courses/degree) and helping BOLT participants to become connected life long learners (e.g. PLN).

Implementation Schedule

August-December 2015	BOLT 671, 672, 673 Pilot BOLT 674, 675, 676 Design
January-May 2016	BOLT 671, 672, 673 Official Course BOLT 674, 675, 676 Pilot BOLT 677, 678, 679 Design
August-December 2016	BOLT 674, 675, 676 Official Course BOLT 677, 678, 679 Pilot
January-May 2017	BOLT 677, 678, 679 Official Course
May-December 2017	Evaluation, Research, Writing

References

- Alberta. Ministry of Education. (2013). Learning and technology policy framework 2013. Retrieved from <https://education.alberta.ca/media/7792655/learning-and-technology-policy-framework-web.pdf>
- *Alberta's Learning and Technology Policy Framework: An Overview of the LTPF*. (2014). Retrieved from https://www.youtube.com/watch?v=7VylAbb_pn4&feature=youtube_gdata_player
- Alberta Teachers Association. (2015a). Educational Research and Development. Retrieved from <http://www.teachers.ab.ca/About%20the%20ATA/Governance/PolicyandPositionPapers/Position%200Papers/Pages/Educational%20Research%20and%20Development.aspx>
- Alberta Teachers Association. (2015b). Professional Development. Retrieved from <http://www.teachers.ab.ca/About%20the%20ATA/Governance/PolicyandPositionPapers/Position%200Papers/Pages/Professional%20Development.aspx>
- Alberta Teachers' Association, Alberta, Alberta Education, & Alberta School Boards Association. (2005). A guide to comprehensive professional development planning. Edmonton, AB: Alberta Teachers' Association.
- Edmonton Regional Learning Consortium. (2010). A guide to support implementation: Essential conditions. Retrieved from http://education.alberta.ca/media/6448188/guide_to_support_implementation_2010.pdf