CONTACT NORTH NORD Online Learning Apprentissage en ligne

How to Effectively Use Assessment in Online And Blended Learning to Help Your Students Succeed

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Who Am I

- Teaching at the university level since 1973
- Psychologist by training but have taught in both statistics programs and in business schools
- Now act as Chief Innovation Officer for Contact North | Contact Nord
- Teaching online at the University of Toronto (OISE), University of Alberta and Athabasca University (MBA)
- Created the world's first fully online MBA in 1993-4 and have been building and working with technology enabled learning experiences ever since
- Worked for 15 years at the Open University (UK) and for 14 years at Athabasca University

Context

- Assessment practices are changing
  - More continuous assessment
  - More peer assessment
  - More group projects and work-based assessment
  - More varied forms of assessment – video, oral presentations, etc.
  - Less reliance on multiple choice, mid-terms and end of term exams
  - More use of assessment ***for*** learning
- Let's make sense of these developments

What We Intend...

- Understanding what authentic and accessible assessment looks like and how it can be done.
- How to leverage technology to automate some of the burden of continuous assessment.
- How to create continuous assessment and feedback in an online and blended course.
- How to ensure integrity of assessment.
- How to manage student expectations.

Context and the Nature of Assessment

What is Changing?

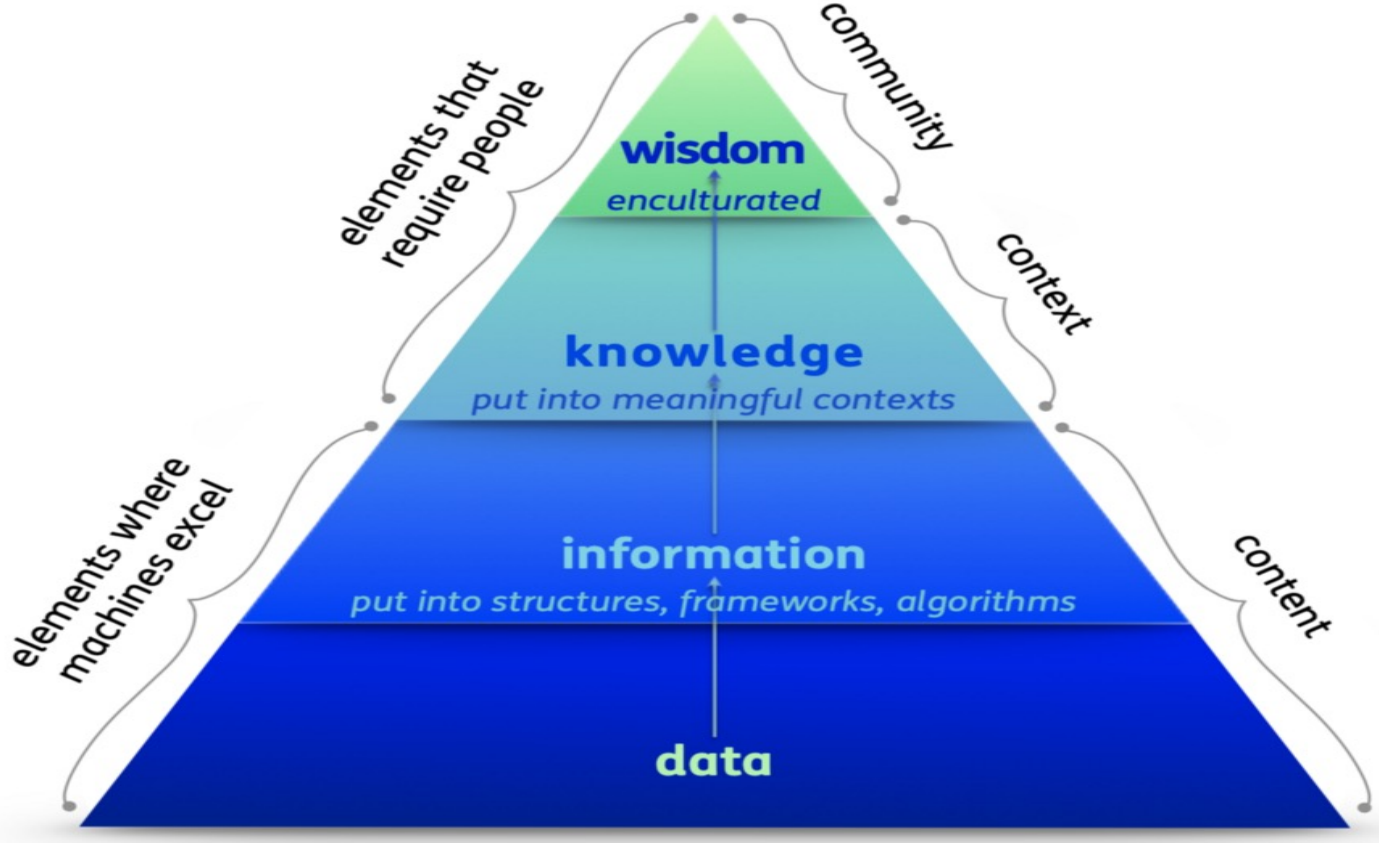
Assessment and Our Understanding of Learning

Instructionism (Rankin, 2020)

- Instructor provides information and knowledge
- Reinforced with texts and activities
- Students are tested on whether they can correctly recall and apply the knowledge and information
- High stakes testing and the “banking” of knowledge.

Constructivism

- Activate prior knowledge and understanding
- Create surprise, challenge or problems that matter
- Apply new knowledge, capabilities, skills and understanding
- Offer solutions and reflections to the surprise, challenge or problem
- Assess value created and added



The origins of the DIKW pyramid are obscure, though one early precursor is TS Eliot's 1934 play *The Rock*, which features the lines "Where is the wisdom we have lost in knowledge? / Where is the knowledge we have lost in information?" The pyramid connects to the three 'cubic' dimensions of learning (content, context, and community) and offers a productive model for designing new learning emphases.

unfoldlearning.net

Knowledge Shift

- Knowledge changing very quickly – 2 million peer review papers a year
- Skills are changing quickly – average shelf-life of skills is getting shorter (2-3 years in IT).
- Our social conditions are changing and will change quickly post C-19
- Context in which we are teaching, and learning is changing

Expectation Shift

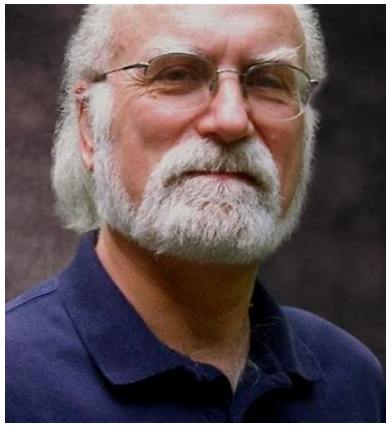
- New skills expected in the workplace – soft skills, IT skills, teamwork.
- Skills based on content knowledge now less valued than the ability to be a life-long learner – content is everywhere.
- Rich assessments more valued by employers than a “grade” – eportfolios.

Technology Shifts..

- AI enabled item and assessment generation using Quillionz, TAO, QG-Net or others.
- Peer review systems like Kritik or Peergrade
- Automated marking with tools like Möbius (for maths), TAO, Sapphire and others.

A Shift to More Authentic Assessment

Grant Wiggins (1998) suggested that authentic assessment involves students providing responses to a challenge, a question, a problem that:



1. Is realistic.
2. Requires judgement and innovation.
3. Asks the student to “do” the subject.
4. Replicates or simulates the contexts in which adults are “tested” in the workplace, in civic life, and in personal life.
5. Assesses the student’s ability to efficiently and effectively use a repertoire of knowledge and skill to negotiate a complex task.
6. Allows appropriate opportunities to rehearse, practice, consult resources, and get feedback on and refine performances and products.

Some Principles for Assessment

Principles...

1. Authentic
2. Accessible
3. Appropriately Automated
4. Continuous
5. Secure

1. Authentic Assessment

- When students work on a challenge, problem or issue – whether on their own or in a team – we can engage in an authentic assessment of their capabilities.
- When students engage in a systematic exploration of an issue in science, art, mathematics, land use – we can engage in an authentic assessment.

2. Accessible Assessment

- Not all students have the same access to technology and resources
- Students with disabilities and special needs need to be able to access assessments in ways that do not discriminate – universal design applies to assessment.
- Assessment needs to be design with the learner in mind, not just the “content”

3. Appropriately Automated

- Growing resources for automated test and item generation.
- Increasing use of adaptive assessment built into LMS systems
- Growing use of plagiarism checkers like Turnitin, iThenticate, Plagiarisma and others.
- Rapid deployment of marking software like TAO, Bakpax
- Such systems are enabling “assessment on demand”

4. Continuous Assessment

- A shift from high stakes mid-term / end of term assessments to continuous assessment.
- Competency based assessment using video or text – Valid-8
- Continuous assessment through learning outcomes assessments.

5. Secure Assessment

- Ensuring that assessment are secure and safe
- Proctored exam systems – ProctorU, Examus, AIProctor
- Biometrics for assessment - TeSLA
- Data forensic enabling us to compare how a document or resource was created with past activity from that same student – Ecree, Elute Intelligence

Pause: Respond to Comments / Questions

Innovative Assessment

Partnering with UNESCO: Things from the Future

HOW

- Using one or more strategic foresight tools (causal layer analysis, scenarios, hype curves, thing from the future), students look at a very specific challenge and describe 2030 and 2050
- Storyboards, multimedia presentations, text and powerful future images

EXAMPLES

- The Public Library in 2030 and 2050
- Early Childhood Education in 2030
- Outdoor Education in China in 2030
- Play After the Pandemic in 2021 and Beyond
- Indigenous Learning Frames for Online Learning in 2030

IAP2: Equity, Diversity and Inclusion Training
Card Sort – 32 cards into 9 categories

What They Do

- Students arrange 32 cards into a bell curve, each card carries a statement about equity, diversity and inclusion (EDI)
- Their sorted cards represent their understanding of the definition, scope and implications of EDI

Why We Ask Them To Do It

- Connecting research, learning and their experience to model building
- Teamwork – they do this in small groups (in class or online) to explore nuances and differences
- They are asked to present their model (focuses on the top and bottom of their model)
- Then they are asked to write up their model connecting their evidence base to the framework they created.

What The Items / Categories Are

Typical Item Cards

- Being fair and impartial.
- Being honest and direct.
- Behaving in a decent way towards all.
- Always acting with integrity.
- Showing respect for different values and cultures.
- Adjusting how you act to take account of the different people you are working with.
- Being fair-minded.

Category Cards

Least Important Feature of EDI (1 Card)

Category 2 (3 cards)
Category 3 (4 cards)
...
Category 7 (4 Cards)
Category 8 (3 cards)

Category 9 Most Important Feature of EDU (1 card)

What We Are Assessing

- Understanding of EDI – ability to navigate complexity
- Ability to create frameworks that are contextual and focused
- Ability to connect readings / research to practice
- Collaboration, teamwork and communication

Self Assessment for Participation

- In undergraduate and graduate courses at three universities we asked students to self assess their participation – grade they would assign and rationale for their own grade
- We provided a rubric for each grade
- We negotiated when our view of their participation and theirs differed – 76 students, we negotiated just 2.

Sample Rubric for Self-Assessments

B + 80-84% You applied some of the analytical concepts and tools of futures studies in the synchronous classroom sessions and ELA presentations. You came to the classes prepared by having read and reflected upon the core readings.
A - 85-89% You actively responded to the wide range of ideas and perspectives offered by the course readings, ELA presenters, respondents and participants (i.e. in the Design Labs and larger ELA sessions). You engaged readings that challenged your pre-conceptions and demonstrated how the course shifted your thinking.
A 90-94% You consistently challenged yourself and your preconceived notions about key concepts such as time, anticipation, and the uses of the future. You were respectful of your colleagues' views while nudging their ideas further (i.e. your contributions encouraged conversation).

Video-Based Competency Assessment (Wellness Works Canada - Practitioner Level Certification)

- Using competency statements, students post videos, audios or other evidence of their ability to demonstrate a competency.
- Trained assessors assess that competence and identify additional work (if any) needed to secure a pass/ fail.
- Leaners use specific resources to shape their submissions.
- Assessment on demand – no coursework (but learning resources are suggested)

Competency	Evidence Used in Assessment
Demonstrate an ability to recruit of a wellbeing ambassador within an organization Learning Resource: https://study.com/academy/lesson/relationship-building-skills.html	Provide a video demonstrating communication skills or upload a copy of a memo or email soliciting support together with testimonials from those you have recruited.

WELLNESS WORKS CANADA

Group Project: What Do These Industries Need to Do To Improve their Competitive Position and Productivity?

HOW

- Groups work in virtual teams
- Groups develop a team charter and work collaboratively online
- On completion of their multimedia presentation, groups assess contribution of each person to the work
- Papers are assessed by leaders in the industry and the instructor

WHAT

- Higher Education in Canada
- Conventional and Unconventional Oil and Gas
- Bio-industrial Products and Services
- Green Energy
- Health Care in Canada

Continuous Assessment

HOW

- Virtual co-op environment using AI enabled avatars as managers / leaders
- Students have individual assignments and group assignments and interact with each other and avatars
- Students are challenged in real time to solve business problems

WHAT

- Assessment of communication and teamwork against a rubric
- Assessment of problem solving
- Assessment of specific skills – e.g. data interpretation, use of forecasting tools, scenario planning.
- Self-assessment and peer-assessment

An Assessment Scheme for a Recent Graduate Course

- Creating of a knowledge resource centre – your contribution 25%
- Professional engagement in the activities of the class – contributions online, sharing of professional exemplars – 25%
- Presentation of a storyboard – 15%
- Final paper / video/ multimedia – 35%

Final Paper – The Promise of the Present Moment

Your foresight challenge that intersects with UNESCO *Education 2050 – Learning to Become*

Key criteria

The scope and impact of the foresight challenge in your context (e.g. why do you care?; what is the 'IT' of your anticipated future; who is this for?;)

The relationship to the global forces and contexts set out in UNESCO's *Futures of Education 2050 – Learning to Be* (e.g. planetary sustainability, participatory democracy, human dignity, work and economic security)

The foresight tools and futures thinking literature you will draw upon (e.g. Causal Layered Analysis, scenarios, 'the Thing from the Future')

Some tentative and speculative conclusions.

Final Paper Assessment Guide

- Scope and impact of the issue (consider IT/ME/THEM) /30
- Relationship to UNESCO 2050 /10
- Application of foresight tools and futures research /20
- Implications: tentative/speculative /30
- Quality of Writing /10

/100

Pause: Respond to Comments / Questions

Implications & Issues

Some Issues...

- Balancing assessment ***for*** learning with assessment ***of*** learning.
- Instructor workload and capabilities – intense work, but feedback = teaching
- Large classes and the economics of assessment
- Focused rubrics for participation and contribution (esp. in group work) – making expectations explicit
- Assessment "gamesmanship" and gaming the system – knowing the student
- Cheating and plagiarism – building a culture of trust

Special Challenge of Competency Assessment

- Competencies must be explicit and observable – e.g. in the trades or in health and safety, financial services etc..
- A competency must be demonstrated in action – can be observed.
- A competency must be evaluated and assessed against a rubric or statement.
- A competency is either present or it is not - we don't want a brain surgeon who is 85% competent!

Simulation: Student Role Plays a Wealth Management Advisor

Competency: Educates The Client **Rating:** _____

Educates client on investment concepts (diversification, markets/economies, defines jargon (minimizes use of jargon), clearly explains the impact of risk and return.

Observable Behaviors:	
	Student is able to clearly explain the concept of diversification/asset allocation to the client in a way that the client can understand
	Student clearly explains the relationship between risk and return, assesses client's risk tolerance, and ensures clients understand
	Student explains to client how their plan works, what the client has to do to make the plan work, and why the plan will help them achieve their goals
	Student checks for client understanding and uses alternate methods for explaining when necessary
	Student clearly explains options available for client to reach goals (trade offs between risk-return –personal saving-adapting goals)

Questions? Comments?

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