

# IT/LMS Facilitated Competency Based Education in Action!

A Collaborative Approach to IT  
Enhanced Course Design: Our Story

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# The Study Context

# Introduction

- Specialist in Transportation & Logistics AEC
  - 23 competencies
- 2 courses/competencies used for study
  - BJ7E: Accounting 1
  - BJ9E: Accounting 2
- Evaluation and training offered through the RAC process

# What is RAC?

RAC stands for the  
Recognition of Acquired Competencies

It is an *evaluation and training* process that officially recognizes candidates' skills acquired on the job or through real-life experiences towards a government qualification: AEC

RAC is the Quebec term for PLAR/PLA

# CBE model = RAC Process

## Competency-Based Education

“Outcome-based instruction that is **adaptive** to the **changing needs** of students, teachers, and the community.”

Competency: “Student’s ability to **apply** basic and other skills in situations that are commonly encountered in everyday life.”

[www.skilledup.com](http://www.skilledup.com)

# CBE/RAC - Paradigm shift

- The focus is on the **learner**.
- Basic assumption: all learners will master the desired competency.
- Learn at their **own pace, practicing and refining**.
- Progress only once the mastery level has been demonstrated.
- No re-learning what is already known.

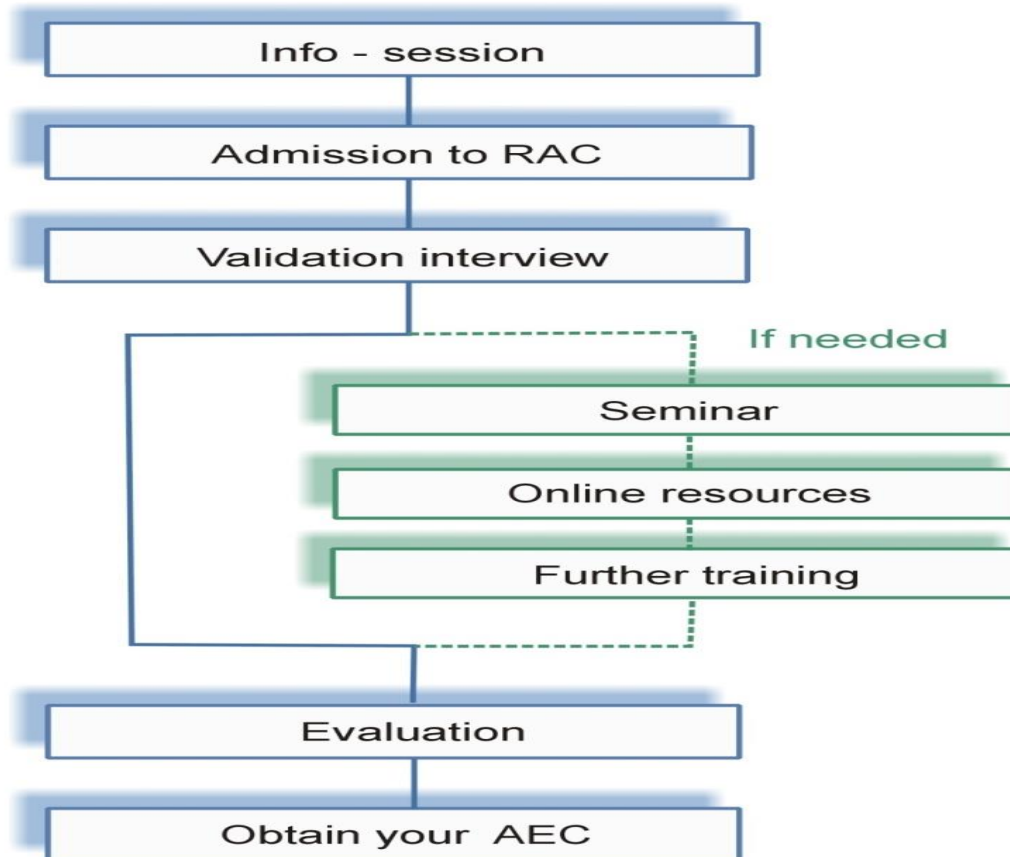
# Who are RAC Candidates?

- People with considerable knowledge of/experience with the knowledge and skills of the AEC
- Quebec T&L Professionals
- Recent Immigrant T&L Professionals
  - Undergraduate/Master's degree holders
  - 5-15 years professional experience
  - In their 30's
  - Motivated and focused on personal/professional development



# Who are RAC Candidates?

## RAC PROCESS



# Champlain's Overarching Service Principle

To facilitate candidates' achievement of their **personal professional development goals**

## Common Candidate Goals

**Recent Immigrant T&L Professionals:** to enter the Quebec workforce and build their careers in T&L in North America

**Quebec T&L Professionals:** to further their careers in T&L

# Basic assumptions at Champlain RAC

- **Every** candidate has individual learning needs to achieve success.
- Our role is to develop **individual solutions** to facilitate our candidates' success.
- One size does not fit all:  
**Adaptability, Flexibility, Accessibility.**

# Our current path to candidate success

- **Our website: Self-Study**
  - Performance criteria/how they will be evaluated
  - Navigation, seminar and skills videos
  - Theory booklets/worked examples
  - Practice exercises/answers
- **Long opening hours:** the support of our admin. team
- **Weekend availability:** Super Saturdays (or Sundays)
- **The support of our content specialists:**
  - Scheduled intensive training sessions
  - Small group/one-to-one partial training: Face-to-face, Skype, Telephone, Email

# The Educational Challenge

# Educational Challenges

- BJ7E/9E challenging competencies: complex **conceptual-procedural** accounting **knowledge**.
- Most candidates need to **practice** and get **feedback** to master the BJ7E/9E competency knowledge/skills.
- **IT tools** offered an opportunity to fill this missing gap in our services in order to facilitate candidate success.

# Technology enabled solutions

- Grant money (ECQ) was available to investigate IT solutions: the use of the D2L Learning Management System (LMS) to facilitate learning.
- How can Champlain RAC build on an already successful program?
- **Partnership with D2L**

# The Project

Analyze

Design

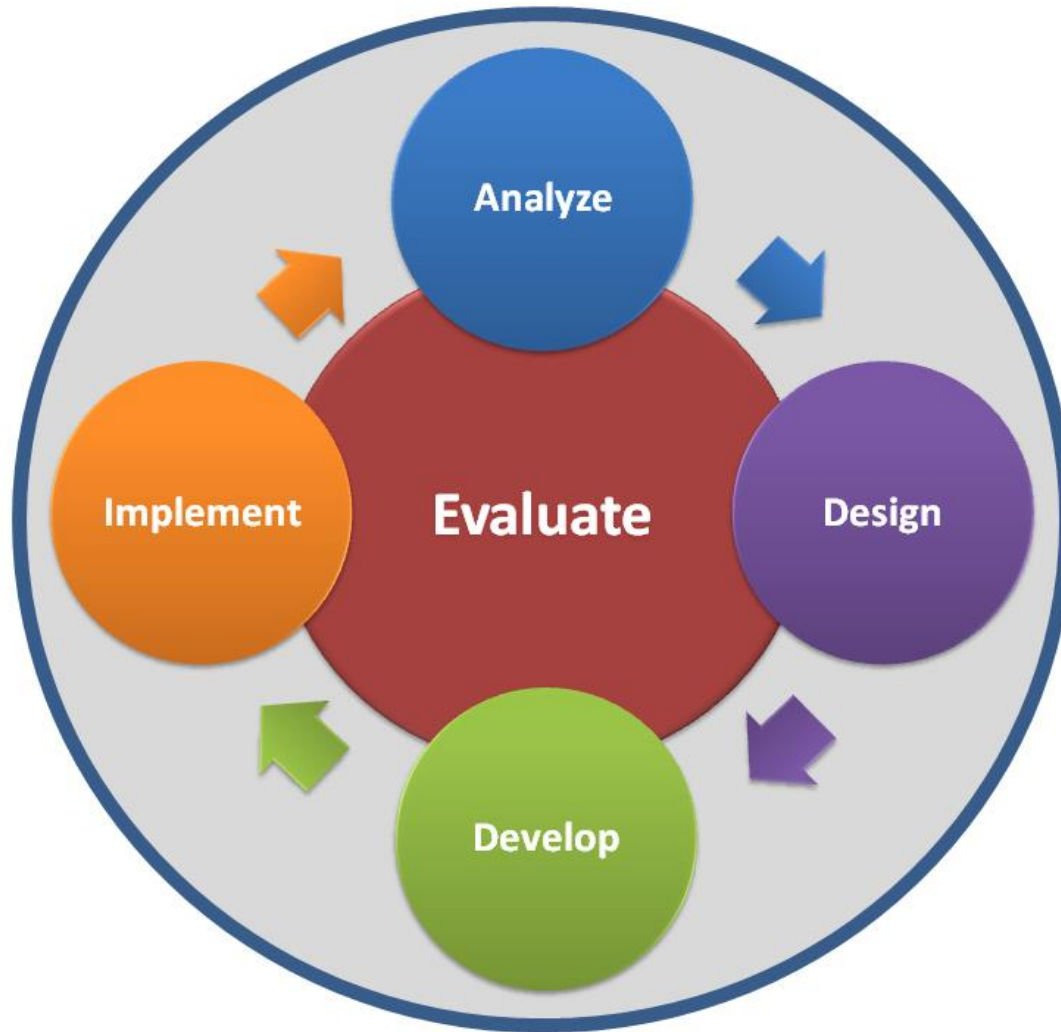
Develop

Implement

Evaluate



# ADDIE Model



# Analyze

How can technology tackle our educational challenges?

1. Needs analysis of the RAC process for BJ7E/9E
  - a. **Practice** for mastery
  - b. Developmental **feedback**: conceptual correction/motivation
2. “Ideal” solutions sought: **pedagogy** driving design

# Analyze

3. Defining **objectives** for Brightspace D2L integration:
  - a. Self-assessment exercises: **developmental feedback**
  - b. Quizzes (formative evaluations: 40%) with **developmental feedback** to facilitate **practice**: multiple attempts possible for each competency element
  - c. “Release” of exams (summative evaluation: 60%) after basic level of competency attainment for each competency element achieved: **candidate success**
  - d. Collection of grades in gradebook to meet governmental reporting requirements and possibly reduce administrative load

# Design 1 - First on site visit

What would it look like? Will it meet learner and institutional needs?

## 1. Mock-up site

- a. Competencies and Learning Outcomes
- b. Course content
- c. Self-evaluation activities
- d. Assessment activities
- e. Feedback
- f. Grade items

2. Buy in and validation from stakeholders: management + admin expert

# Design 2 - Second on site visit

How can we sustain the changes in design?

- 1.Design of the course flow for BJ7E
- 2.Training of instructor & advisor
- 3.Tutorials
- 4.Access to a resource person for Q&A

The goal: **Autonomy**

# Develop/Implement: Suzanne's BJ7E Site

The screenshot displays a Blackboard LMS interface for the course 'Accounting - RAC'. The browser address bar shows the URL <https://terminuschamplain.com/d2l/home/6733>. The user is logged in as Suzanne Wassef. The main navigation bar includes links for Assessments, Calendar, Content, Dropbox, Edit Course, Communication, User Progress, and Competencies. A dropdown menu is open, showing 'Content Browser' and 'User Progress'. The background image features a large blue container ship named 'HEUNG-A VENUS' docked at a port with yellow gantry cranes. The Windows taskbar at the bottom shows the system tray with the date 6/1/2016 and time 4:17 PM.

# Evaluate: Candidates

**BJ7E/9E**

**Profil:**

**# of responses: 15**

All over 31 years of age

IT Skills level: Intermediate

Use more than 2 devices

# Evaluate: Candidates

**scale: 1 strongly disagree to 4 strongly agree**

- The resources provided in the D2L course (documents, links, videos) helped me succeed: **3,3**
- The instructions given in the D2L course were clear and useful: **3,1**
- The formative assessments (40% quiz) helped me to prepare for my summative (60% exam) assessments: **3,42**
- The quizzes made it easy to demonstrate what I already knew or learned in the competency: **3,42**
- The gradebook helped me understand my academic performance: **3,28**



# Evaluate: Candidates

The emails helped me better understand my academic performance:	<b>2,87</b>
The emails helped me to motivate me to succeed:	<b>2,8</b>
The course in D2L targeted my individual learning needs:	<b>3,3</b>
The resources in D2L were easily accessible:	<b>3,29</b>
The resources in D2L were easy to navigate:	<b>3,25</b>
I received technical support when needed:	<b>3,05</b>

# Evaluate: Candidates: Overall

The overall course in D2L helped me succeed in this competency: **3,08**

I would recommend other instructors use the same D2L template/design in their competency: **3,22**

# Evaluate: Candidates: Overall

Which functionalities (tools, resources, features) in D2L had the most positive impact on your learning?

- Formative assessments (quiz)
- Immediate feedback

What challenges did you have learning with D2L?

- At first seemed difficult, then easy to learn
- Navigation

# Evaluate BJ7E: Candidates: Other

Other comments:

“We were the first ones to use D2L, and Suzanne was a great help to me”

“Many thanks to you for D2L”

# Evaluate: Suzanne



# Next Steps: Plans for D2L at Champlain

- Videos to show how to access, navigate and use D2L resources: BJ7E completed.
- Investigation of gradebook reporting functionality.
- BJ66: math competency development: fall
- Other programs: will present results of study to colleagues to see if they can use D2L in their programs.

# The Take Aways

# Focus on Learner Needs

1. Focus on identified learners' needs.
2. Design to allow learners to focus on what they don't know and get confirmational feedback on what they already know.
3. Design with learner motivation in mind.



# Focus on Learner needs

4. Design to allow self-paced learning and individualized developmental feedback: adaptability, flexibility, accessibility.
5. Design for learner success.
6. Provide all candidates with the same opportunities to learn.
7. Listen to your learners and use their feedback.

# IT to Facilitate Learner Success

## ADDIE

1. Identify learners' learning needs and choose IT tools to meet these needs: **Analysis**
2. Use expertise to design tools: **Design**
3. Build tools: **Develop**
4. Use tools: **Implement**
5. Get feedback and re-design/develop **Evaluate**

# IT to Facilitate Learner Success

**Pedagogy drives learner success**

**Pedagogy + IT enhances learner success**

# Thank you

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