Coming Together On Common Ground

Best Practices in the CSAP: Learning Outcomes Development Project

What was the process? Steps:

1. Outlines were received from 24 colleges,then the courses were mined for commonality in pre tech, pre business and business
   - common content among all college math courses and overlap made this an easier job.

2. We used the colleges course outlines and content as the indicators of the mathematics skills and knowledge that students should have upon completion of the course – a base line of objectives for business math.

Step 3:

There was a set of 8 guiding principles developed and agreed upon which we used to develop the common learning outcomes for pre tech, pre business and business

Guiding Principles: (Some examples)

We agreed that;

1. the goals had to be SMART – specific, measurable, achievable, relevant and time-related.
2. they had to align with the Ontario Curriculum which focuses on problem solving, reasoning …
3. we were going to use higher level thinking for our outcomes – such as knowing, applying and reasoning.
4. the outcomes would reflect independent and collaborative learning of mathematics in business.
5. the learning outcomes would reflect MTCU standards.

Step 4:

Based on the guiding principles The LOPD writing team produced the learning outcomes.

- Laurel Schollen, CSAP Director, Seneca College
- Patricia Byers, LODP Coordinator, Georgian College
- Sarah Brumwell, Administrative Assistant, Seneca College
- Margaret Mason, Business Mathematics Lead, Fanshawe College
- Tanya Jessup, Pre-Technology Mathematics Lead, Durham College

Learning Outcomes: Pre Business

1. Analyze the information from business based math problem.
2. Select the appropriate formula, tool, strategy to solve
3. Apply the operation method or strategy to solve business problem
4. Model real world problems
5. Justify the solution to business problem to ensure its accuracy and validity.

What can we do with them?

Represent minimum common standards for first semester/year mathematics courses that support teaching;

1. Can help develop foundational business or first year diploma mathematics course.
2. Establish a curriculum framework based upon a problem solving approach – not topic approach. (solving real world disciplined based applications) Consider a different model for structuring classroom curriculum pedagogy.
3. Can be used to evaluate current programming.
4. Provide common platform cross–provincially. Student transferability of credit and inter and intra college support for mathematics curriculum.

Common Learning Outcomes:

Successful, painless process that was enjoyable, informative and productive.

Why?

1. Cooperation of the colleges – fully supportive of CSAP and LOPD goals and provisions.
2. The courses were closely aligned to begin with.
3. A solid and well defined direction for designing the outcomes.

   Expectations of design were clearly defined ahead of time.
3. Great leadership – we were kept on track and on time with collaborative and knowledgeable leadership.
4. Common focus on the students and the context.

This can be done – How we succeeded
Title and Content Layout with List

- Great cooperation with the colleges: received the outlines from 24 colleges across Ontario for pre tech, pre business and business math courses. Amazing
- We were very close anyways – the data from 24 colleges showed us that we had VERY common, delivery, content, objectives, courses ideas
- Common Terminology – what are objectives 8 principles
- Great Leadership and knowledge – Trish Byers outlining the goal keeping us on track pulling it all together.
- Focus on the goal of commonality in the programs and colleges
  - First semester students – not just reaching the high school curriculum
  - Numeracy – mathematics,
  - In a business context,
  - In a context of the student learning in their college program – pre tech, per business or business.