Team-based learning:
Does it have a positive impact on student learning in accounting?

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Bissett School of Business

With thanks to Joan Barlow, Assistant Professor,
Bissett School of Business
“Early Returns and Initial Findings of Work in Progress”

• Why did we change our course?
• What is “team-based learning”?
• Impact on our course design
• Why do a SoTL project on this?
• SoTL data collection
Motivation for Change in Teaching

- Passive approach to learning
- Lack of accountability
- Poor knowledge transference from one course to the next
- Surface learning not deep learning
Catalyst for Change

Dee Fink workshops:
Mount Royal University:
Joy and Responsibility of Teaching Well

Cdn Academic Accounting Association:
Creating Significant Learning Experiences
“Location of the Course”

<table>
<thead>
<tr>
<th>ACCT 2121</th>
<th>ACCT 3220</th>
<th>ACCT 3221</th>
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<tbody>
<tr>
<td><strong>Introduction to</strong></td>
<td><strong>Financial Accounting</strong></td>
<td><strong>Intermediate Accounting</strong></td>
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<td><strong>All BBA Students</strong></td>
<td><strong>Accounting majors</strong></td>
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Fink’s Taxonomy of Significant Learning

ACCT 3220 Learning Outcomes

• Learn how to learn accounting

• Develop an appreciation for the vital role accounting plays in society

• Learn how to work effectively in a team environment

• Develop skills required to become preparers of financial accounting information
# Team Based Learning Instructional Activity Sequence

**Activities**

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Application (Practice with Feedback)</th>
<th>Assessment</th>
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<tr>
<td>R.A.P.:*</td>
<td>Group Work (Simple)</td>
<td>Module Exam or Assignment: Done individually</td>
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<td>1. Individual Test</td>
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<td>2. Group Test</td>
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<td>3. Appeal Process</td>
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<td>4. Instructor mini-lecture</td>
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<td>Review</td>
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Readiness Assessment Test (RAT)

Start of each module
Each RAT - 4% of course grade

Step 1: Individual multiple choice test
Step 2: Repeat Test in Teams (IF-AT forms)
Grading the Team Test

Immediate Feedback Assessment Technique (IFAT)

Name: Team 3
Subject: Test # 1
Total: 23

Scratch off covering to expose answer

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Readiness Assessment Test (RAT)

Start of each module
Each RAT - 4% of course grade

Step 1: Individual multiple choice test
Step 2: Repeat Test in Teams (IF-AT forms)
Step 3: Group written appeals
Step 4: Mini-lecture
Readiness Assessment Appeals

Ambiguity in Question

• Describe source of ambiguity
• Provide alternative wording

Ambiguity in Readings

• Describe reason for disagreement
• Provide supporting page reference and quote
How did Team Based Learning impact our course design?
Mark Allocation

- Readiness Assessment Tests 20%
- On-line algorithmic assignments 5%
- End of module tests/assignments 40%
- Peer Evaluation 5%
- Team History Snap shots 2%
- Comprehensive team project 8%
- Final exam 20%

100%
Course Design Implications

- Divided course into five course modules
- Created detailed module specific objectives and reading guides
- Increased integration of course material
- Increased alignment of class activities with outcomes and assessments
- Module tests – no midterm exam
Peer Assessment of Contributions of Group Members (5% of course grade)

- Preparation for class?
- Contribution to group discussion and work?
- Respect for and encouragement of others’ ideas?
- Flexibility when disagreements occurred?

Interim assessment
Final assessment
Why SoTL?
Initial Findings: Grade Distribution

2009/10 compared to prior years

- 50% drop in number of withdrawals
- 50% drop in number of D and F grades
Initial Findings: Exam Results

2009/10 compared to prior years

• Results on final exam comparable to term test
• Traditionally final exam grades are lower
Initial Findings: Class Attendance

• Reduction in number of classes missed
• Peer evaluations emphasized attendance
• Last three days are a comprehensive team project – almost full attendance
Initial Findings: Student Feedback

• The “Critical”
• The “Converts”
• The “Convinced”
• The “Evangelical”
• The “Post Semester Realizations”
SoTL Project
Data Collection

• Team History Snap Shots
• Peer Evaluations
• Post semester on-line survey
• Student grades
Team History Snap Shots

- One snap shot per module per team
- Rotate responsibility
- Explain the process the team undertook to learn the material
- How did they function as a team
Team History Snap Shots

- How your team worked together.
- What general team rules you followed.
- What factors you believe contributed to effective and/or ineffective team behaviour.
- The role of collaboration in understanding/learning conceptual and procedural aspects of accounting.
- How individual expertise and preparation affected the team dynamic and function.
- How asking for questions or for clarification affected the team dynamic and function.
- What the team would do differently (or the same) in the future.
Peer Evaluations

Interim Peer Evaluation
- Mid-semester
- No impact final course grade
- Emphasis on constructive feedback

Final Peer Evaluation
- End of semester – after comprehensive in-class team project
- 5% of course grade
Peer Evaluations

Students receive:

• Collated comments (anonymous)
• Average of scores from peers
• Range of average scores for their team
Post Semester On-Line Survey

- General question on what helped them learn and how
- Impact of the RATs
- Division of course into modules
- Class activities versus traditional lectures
- Being part of a team
- Interim and final peer evaluations
Grades

• A measure of success of team-based learning
• Triangulation with survey and term work
• Study is confidential not anonymous
• May affect participation rates
Resources

• www.teambasedlearning.org

• Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses
  L. Dee Fink
  ISBN: 978-0-7879-6055-1

• Team-Based Learning: A Transformative Use of Small Groups in College Teaching
  L. K. Michaelsen, A.B. Knight, L. D. Fink
  ISBN 1-57922-086-x
For Accounting Faculty Only
Creation of Course Modules

1. Accounting Cycle Review
2. Financial Accounting Concepts & Stmt Analysis
3. Equity
   (Partnerships & Corporations)
4. Financial Instruments
   (LT Liabilities & Investments)
5. Cash Flow Statement
Module Objectives & Reading Guide

• Preparation for the RAT
• Specific learning outcomes for each module
• Details on the material to read
• List of questions they should be able to answer from each section of the readings

• Brief Exercises to practice before the RAT
Alignment of Class Activities with Outcomes & Assessments

- Process required a higher degree of intentionality regarding alignment
- Different types of class activities
- “Tabloid Queens” – 11” by 17” paper for projects
Module Tests

- Four modules had end of module tests
- 110 minutes for each test (one class)
- Worth 5% to 10% each
- Very comprehensive
- Reduced game playing about what would be on the exam
- No “midterm”

Comprehensive final examination
Outcome: Increased Integration of Course Material

Examples:
1. Revenue Recognition issues directly linked to impact on financial statement analysis
2. Bonds payable versus investments in bonds
3. “Salary allowances” in partnerships vs. “salary expenses” in corporations
4. Withdrawal of a partner versus reacquisition of shares