Psychology 3TT3: Applied Educational Psychology – Fall 2011

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Teaching Assistant: Barb Fenesi fenesib@mcmaster.ca
IntroPsych Course Coordinator Julia Riddell intropsych@mcmaster.ca

Office Hours: By appointment

Class Meeting Time: Fridays, 11:30AM-2:30PM, PC 237
NOTE: There are two assigned readings that must be completed BEFORE the first class on Fri Sep 9.

Course Description

What does it mean to be a scholarly instructor? How does pedagogy research inform education practise? How do cognitive models help us understand how we effectively learn complex information? These are the types of issues we will explore in this course through theory, practice, and reflection. The theoretical elements are explored through journal readings and facilitated discussions. The practical elements of the course will also be explored through Workshops and Group Projects. The overall goal of this course is to bridge the two aspects of educational psychology – theory and practice –through discussions on how to test and implement theory in the classroom.

Evaluation Summary

<table>
<thead>
<tr>
<th>Participation</th>
<th>10%</th>
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<tbody>
<tr>
<td>Journal Reading Discussion Facilitation</td>
<td>20%</td>
</tr>
<tr>
<td>Tutorial Preview Project</td>
<td>20%</td>
</tr>
<tr>
<td>Teaching Triangle</td>
<td>10%</td>
</tr>
<tr>
<td>Presentation Slides</td>
<td>10%</td>
</tr>
<tr>
<td>Research Proposal</td>
<td>30%</td>
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Missed Work

If you miss a class period, assignment or an exam due to illness, personal circumstances, or late registration, it is your responsibility to notify the instructor and to submit appropriate documentation (e.g. note from physician) to the appropriate Faculty/Program office.

Academic Integrity

As a student, you are expected to behave honestly and ethically in all of your academics. According to McMaster University’s Academic Integrity Policy, you are engaging in academic dishonesty if you “knowingly act or fail to act in a way that result or could result in unearned academic credit or advantage” (Academic Integrity Policy, p. 6). This behaviour can result in serious consequences, such as a grade of zero on an assignment, loss of credit with a notation on the transcript that reads “Grade of F assigned for academic dishonesty,” and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. The following are just three forms of academic dishonesty:

1. Plagiarism.
2. Improper collaboration.
3. Copying or using unauthorized aids in tests and examinations.

For more information on academic dishonesty and academic integrity, please read the Academic Integrity Policy: http://www.mcmaster.ca/academicintegrity
Evaluation breakdown:

Participation – 10%

Your active participation will create a dynamic learning environment. For the 12 weeks of class, every 3 week period you will be assigned a grade out of 10 using the rubric below. At the end of the semester, your top 3 of 4 period grades will be counted to calculate your final Participation grade.

<table>
<thead>
<tr>
<th>ATTENDANCE</th>
<th>CONTRIBUTION TO CLASS/ONLINE DISCUSSION</th>
<th>EVALUATING CONTRIBUTION</th>
</tr>
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<tbody>
<tr>
<td>(3 of 3)</td>
<td>Excellent: 10  Good: 8  Fair: 6  Poor: 4</td>
<td>Excellent: frequent, stimulating</td>
</tr>
<tr>
<td>(2 of 3)</td>
<td>Excellent: 6-8  Good: 4-6  Fair: 2-4  Poor: 0-2</td>
<td>Good: frequent, valuable</td>
</tr>
<tr>
<td>(1 of 3)</td>
<td>Excellent: 4  Good: 2  Fair: 0  Poor: 0</td>
<td>Fair: occasional, forced</td>
</tr>
</tbody>
</table>

Note that for a given period, if you attend 3 out of 3 classes but make little or no contribution to discussion, you cannot receive a grade higher than 4 out of 10 for that period.

Journal Article Facilitation – 20%

Tutorial Project – 20%
- Presentation: 10%
- Written Case Study: 5%
- Written report: 5%

Teaching Reflection – 10%

Presentation Slides – 10%

Research Proposal – 30%
- Letter of intent: 5%
- MREB + Research Proposal Report: 25%
## Course Outline – Fall 2011

<table>
<thead>
<tr>
<th>Week</th>
<th>Class</th>
<th>Topic</th>
<th>Tutorial Preview</th>
<th>Due in class</th>
</tr>
</thead>
</table>
| 1    | Sep 9 | Introduction | Levels of Analysis | • Sign-ups  
• Read weekly articles |
| 2    | Sep 16 | Unit 1: PBL – SoTL  
*PBL Workshop* | Research Methods 1,2 | • Read weekly article |
| 3    | Sep 23 | Unit 1: PBL - Pedagogy | Classical Cond 1, 2 | • Read weekly article  
• Teaching Triangle visit 1/4 |
| 4    | Sep 30 | Unit 1: PBL – Cognition | Instrumental Cond 1,2 | • Read weekly article  
• Teaching Triangle visit 2/4 |
| 5    | Oct 7 | 1. Powerpoint Presentations  
2. Letter of Intent  
3. Teaching Triangle Reflection 1  
*Multimedia Workshop* | Thanksgiving: No preview | • Read weekly article  
• Teaching Triangle materials  
• Read sample MREB and Research Proposal |
| 6    | Oct 14 | Unit 2: Multimedia Instruction  
– SoTL  
- 5 min presentations of LOI | Problem Solving  
Categories & Concepts | • Read weekly article  
• Letter of Intent (5%)  
• Reflection 1 written (5%) |
| 7    | Oct 21 | Unit 2: Multimedia Instruction  
– Pedagogy | Attention  
Memory | • Read weekly article  
• Teaching Triangle visit 3/4 |
| 8    | Oct 28 | Unit 2: Multimedia Instruction  
– Cognition  
Workshop: Teaching Triangle  
Reflection 2 | Personality 1, 2 | • Read weekly article  
• Presentation Slides (10%)  
• Teaching Triangle visit 4/4  
• Teaching Triangle materials |
| 9    | Nov 4 | Unit 3: Assessment Techniques  
– SoTL  
*MC Workshop* | Psychopathology 1 | • Read weekly article  
• Reflection 2 written (5%) |
| 10   | Nov 11 | Unit 3: Assessment Techniques  
– Pedagogy  
*MC Workshop Cont’d* | Psychopathology 2 | • Read weekly article |
| 11   | Nov 18 | Unit 3: Assessment Techniques  
– Cognition | Forming Impressions | • Read weekly article |
| 12   | Nov 25 | Research Proposal  
Presentations | Influence of Others 1, 2 | • MREB + Research Proposal Report (25%) |
# List of Readings

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Assigned Readings</th>
</tr>
</thead>
</table>
| 1    | Sep 9  | Paulson, D. R. (1999). Active learning and cooperative learning in the organic chemistry lecture class. *Journal of Chemical Education, 76*(8), 1136-1140.  
Optional reading: Davis, B. G. The first day of class. |
| 2    | Sep 16 | **Unit 1: PBL – SoTL**  
*Workshop - PBL*  
| 3    | Sep 23 | **Unit 1: PBL – Pedagogy**  
| 4    | Sep 30 | **Unit 1: PBL – Applied Cognition**  
| 5    | Oct 7  | *Workshop – Multimedia Presentation*  
Sample MREB and Research Proposal |
| 6    | Oct 14 | **Unit 2: Multimedia Instruction – SoTL**  
| 7    | Oct 21 | **Unit 2: Multimedia Instruction – Pedagogy**  
| 8    | Oct 28 | **Unit 2: Multimedia Instruction – Applied Cognition**  
| 9    | Nov 4  | **Unit 3: Assessment Techniques – SoTL**  
*Workshop – Assessment Techniques*  
| 10   | Nov 11 | **Unit 3: Assessment Techniques – Pedagogy**  
*Workshop – Assessment Techniques Cont’d*  
| 11   | Nov 18 | **Unit 3: Assessment Techniques – Applied Cognition**  
| 12   | Nov 25 | No Assigned Readings |
Discussion Facilitation

This activity is meant to: (a) further a critical approach to research; (b) bridge the gap between the material your peers have just read and practical application in the classes they are going to teach this semester and in the future. A great discussion will include how TAs can use this information in planning lessons.

During one of the weeks, you will be a Discussion Facilitator along with 2-3 of your peers. The class will break into groups and you will lead a discussion on that week’s article:

- As a team, provide an overview of the key points of the article to the whole class (5 min)
- As a Facilitator, lead a discussion with your group using 4-5 prepared questions (25 min)
  - Discussion should include refining a concept into one practical tip for teaching
- As a team, lead a final class-wide debrief, summarizing and comparing the independent discussions (10 min)
- As a team, each member presents one practical tip for teaching that emerged from group discussion (5 min)

Tips for Developing Prepared Questions for discussion facilitation (adapted from Dan Goldreich)

Because the road to scientific discovery is fraught with obstacles and pitfalls, the perfect study that unambiguously "proves" a set of clear conclusions is extremely rare. Nearly all research studies have limitations. There is often reason to question a study's rationale, methods, results, or conclusions. Even excellent studies usually leave some loose ends.

Generally, an excellent study asks an important research question and comes close to convincing it. This study uses a well-designed and well-executed methodology, and it reaches well-founded conclusions. Because its question is interesting and its conclusions are well-founded, the excellent study influences the understanding of researchers in the field. It may make researchers realize that what they previously suspected to be true (but were unsure of) is in fact very likely to be true, or that what they previously believed is in fact probably false. It may cause researchers to ponder ideas they had not previously considered. It may lead researchers to pursue exciting new directions.

A poor study, by contrast, either asks an uninteresting question (for example, one whose answer is already well established or would not advance the field), or has serious flaws that preclude convincing conclusions. A poor study leaves researchers in the field with essentially the same knowledge they had before reading it.

Not surprisingly, the typical research study lies somewhere between these two extremes. Reading a scientific paper critically means not passively accepting the author(s)' interpretation of their data, but rather asking yourself at each point what the data tell you. If the paper's methodology is flawed or the data were collected inappropriately, then the data may carry no real information. Quite commonly, you may find some—but not all—of the data 'convincing' (i.e. you accept these data as correct and you interpret them as the authors do). Alternatively, you may decide that you accept the data as correct, but that you disagree with the authors' interpretation of their meaning.

As you read the paper, ask yourself the following: Was the study's research question important, or was it uninteresting? Are the data trustworthy? Which, if any, of the study's conclusions are convincing, and which are uncertain or doubtful? Generally, a conclusion expressed in a paper is convincing if you can think of no plausible alternative explanation. A conclusion is uncertain if a plausible alternative explanation occurs to you. A conclusion is doubtful if you consider your alternative explanation to be more likely than the one expressed in the paper.