Classroom Visit: PS272 Sensation and Perception

Instructor: Joseph E. Atkins, Ph.D., Colby College

Spring 2004

I chose Joe's classroom to visit for several reasons: Joe was a non-traditional student who "went back to school" in order to train for a second career in computer programming; he accidentally ended up in our psychology department in the Fall of 2003 by virtue of his interest in virtual reality; not only had Joe never taken the historically required course (Sensation & Perception), he also had never taught the course before the Spring 2004 semester; Joe (at the time) was considered a very inexperienced college instructor, and had indeed been teaching for only as long as he has been at Colby College (his experience previous to Fall 2003 had been as a graduate teaching assistant and as a women's football coach).

Joe and I worked hard to find a time for me to visit his class during the Spring 2005 section of the course with no success; I am drawing on a class-time visit during which I was actually the videographer and assistant in one of his demonstration/laboratory class meetings. I had also helped Joe plan this exercise by researching for examples of phenomena, purchasing the "toys", and repairing department-owned equipment. The topic of the class meeting on that day was "Game Day"; the class met in the Colby College Field House rather than in the regular classroom. (See my description of the normal meeting place in Winn Visit document.)

The field house holds a large gymnasium which had been divided into two sections, one for our class, and the other for a staff intramural basketball game. Game stations were set up around our

space; the video equipment, “manned” by me, was off to one long side of our section. The students in this course were traditional sophomore psychology majors. The class (as is typical in a psychology department) broke down roughly to 15% male and 85% female. The students are required to take this course in the major at Colby College (just as I was required to take it as a psychology undergraduate).

At the beginning of the class-time, the students were each given a pair of prism glasses designed to invert and or skew their vision, and then asked to participate in the variety of children’s games for about an hour. Examples of the games are: T-ball stand with a whiffle ball, and over-sized plastic bat; basketball; Frisbee throwing; Nerf and Velcro ball tossing games; relay racing; and “balance beam” (a tape-line on the floor). Each student was expected to participate in every activity working in dyads with one student wearing the glasses, and the other student “spotting” glasses-free. Joe roamed from game to game, while I fulfilled the role of “picture-taking mum”.

This exercise took place near the end of the semester at a point when the students presumably had a solid understanding of the phenomena being demonstrated. The stated intentions of the demonstration were that the students experience the visual effect of having had one’s vision skewed, and that they have an “affect cue” to associate with the phenomena as they continued in the psychology curriculum. Vision-impairment, in the form of inverting or skewing the visual field, is intriguing primarily because the brain behind the “skew” is able to compensate for and adapt to the impairment, effectively “re-inverting” and “re-skewing” toward making it possible for the person to function relatively normally in his world. This was the phenomenon that Joe

really wanted the students to experience, that is, he expected their performance (perception) to improve as they adapted to the prism glasses (sensation) through the course of an hour's time.

To say that the students enjoyed this exercise would be a gross understatement! Of about 25 students, at least half considered themselves athletes (males and females) who fully expected to "shine" in the gaming environment; they behaved as such. In fact, as an aside, the athletes performed significantly worse than the self-defined non-athletes – Joe and I did discover that this phenomenon is evidenced in the research literature when we checked after the fact. There was lots of giggling and joking by the students and the instructors throughout the entire class-time as basketball stars accidentally threw the ball to the other side of the court, baseball stars "bopped" their spotters with the bat, and Joe sat down when he unsuccessfully attempted the balance beam. Everyone enjoyed themselves immensely!

A somewhat unanticipated net benefit of this exercise was the camaraderie between the students and the instructors that has continued to exist. Joe expected the students would relax going into their final exam session, but neither of us really appreciated the effect that laughing and learning at the same time would have on all of us. While we knew from our combined experience in working with groups of people that a certain comfort level would evolve, neither of us predicted immediacy or a lasting effect. The reference created by sharing a day of apparent chaos netted both increased interest and learning in the topic, and the impression that Joe and I will always be available to mentor in life or in science.

In addition to the increased level of trust the students seemed to have for their instructors, Joe and I were reminded that student performance must often be put into specific context before being assessed. The students tended (during and after the particular class-time) to share themselves more freely which resulted in an increase in Joe's capability to identify and work with particular students in a more effective way than he had previous to Game Day, and I was seen more clearly by the students as a resource for their chosen academic path.

What did I learn from this classroom visit? On the personal side, it seems my 20 years as a baseball parent has taught me more than I knew – I discovered that am able to successfully identify ball players' positions just by watching them throw the ball. On the professional side, this classroom experience reinforced my suspicion that the more comfortable students and instructors can be with each other, the more learning can take place in both directions – on the part of the student and the instructor.

## PS272 Sensation and Perception
## Spring 2005

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**Instructor**: Joseph Atkins 339 Roberts Ext. 3656 Office hrs: T&TH 2-3 pm email: *jeatkins*
**Text**:*Sensation and Perception by Goldstein*, E. Bruce (6th edition)

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| Date | Tentative class topic | Text ref. |
|---|---|---|
| Feb. 3 (R) | Course overview, Introduction to S&P, Important issues | Ch. 1 |
| Feb. 9 (T) | Levels of analysis - anatomy, physiology, sychophysics | Ch. 1 |
| Feb. 10 (R) | Light, anatomy of the eye and retina, Psychophysics lab<br>Lecture Notes.*ppt* | Ch. 2 |
| Feb. 15 (T) | Fovea, photoreceptors, transduction, sensitivity and adaptation | Ch. 2 |
| Feb. 17 (R) | Visual system – LGN, sub-cortical areas, striate cortex<br>Lecture Notes.*ppt* | Ch. 3 |
| Feb. 22 (T) | Visual processing – cortical maps & structures<br>Lecture Notes.*ppt* | Ch. 3 |
| Feb. 24 (R) | Higher level visual processing – pathways & modularity<br>Lecture Notes.*ppt* | Ch. 4 |
| Mar. 1 (T) | Higher level visual processing – attention, plasticity | Ch. 4 |
| Mar. 3 (R) | Vision topics, review | A1, A2 |
| Mar. 8 (T) | **Exam 1 (covers class, lab, and text material for the period 2/3 – 3/3)** | |
| Mar. 10 (R) | Sound, anatomy of the ear<br>Lecture Notes.*ppt* | Ch. 10 |
| Mar. 15 (T) | Anatomy and physiology of the cochlea & higher auditory areas<br>Lecture Notes.*ppt* | Ch. 10 |
| Mar. 17 (R) | Sensation of loudness and pitch<br>Lecture Notes.*ppt* | Ch. 11 |

| | | |
|---|---|---|
| Mar. 29 (T) | Auditory localization, speech perception (425-428), speech issues | Ch. 11,12 |
| Mar. 31 (R) | The chemical senses – olfaction & gustation, smell & taste lab | Ch. 14 |
| Apr. 5 (T) | The chemical senses – olfaction & gustation, pheromones<br>Lecture Notes.*ppt* | Ch. 14 |
| Apr. 7 (R) | Somatosenation, proprioception, pain | Ch. 13 |
| Apr. 12 (T) | **Exam 2 (covers class, lab, and text materials for the period 3/10 – 4/7)** | |
| Apr. 14 (R) | Gestalt principles, perceptual segregation, object recognition | Ch. 5 |
| Apr. 19 (T) | Object recognition, representations of 3D structure | Ch. 5 |
| Apr. 21 (R) | Perception of color – theories, deficits, constancy<br>Lecture Notes.*ppt* | Ch. 6 |
| Apr. 26 (T) | Perceiving depth and size – visual cues<br>*Media Lab Instructions.doc* | Ch. 7 |
| Apr. 28 (R) | Binocular vision, stereopsis, visual illusions, Perception-Action lab<br>Lecture Notes.*ppt* | Ch. 7 |
| May 3 (T) | Perceiving motion – motion detection, self-motion, VOR<br>Lecture Notes.*ppt* | Ch. 8 |
| May 5 (R) | Perceptual development, perceptual learning (optional term paper due)<br>Lecture Notes.*ppt* | Ch. 15 |
| May 11 (W) | **Final Exam Exam 3 (covers class, lab, and text materials for the period 4/14 – 5/ 5)** | |

**GENERAL COURSE INFORMATION**

**Exams**: The three exams will cover material from the class, text, and *assigned readings*. Exams will contain multiple choice, diagram, matching, and short-answer questions. Exams 1 & 2 will be taken in class, Exam 3 will be taken during the final exam period. All exams will be worth 100 pts.

Exams from last year's S&P class will be available on the course webpage. When possible, time will be set aside to review topics for upcoming exams. Students are encouraged to submit questions about review topics of interest.

**Course Grading:** Grades for the three one-hour exams will be assigned on the basis of both your absolute performance, and your performance relative to the class mean and distribution. Each of the three exams will count equally toward the final course grade. Students with attendance and participation problems are subject to up to a 4% final grade penalty.

**Optional Term Paper:** If you believe that your exams scores do not reflect your mastery of the course material, you may elect to turn in an optional term paper. Term papers must be 12–15 pages in length and represent a major investigation of a course related topic. A term paper will be given equal weight with the exams in determining your final grade. Outlines must be approved.

Anyone interested in writing a term paper should meet with me before spring break to discuss the topic. The term paper must include primary sources and follow the format described in the *Publication Manual of the American Psychological Association*. Optional term papers are due May 5th (last class of the semester). Once submitted, the paper will count towards the final grade, and can thus either raise or lower the final grade.

**Laboratories**: Lab activities will be integrated into classes, though some out of class work may be required. Lab activities will include computer demonstrations, "hands-on" exercises, and possibly some experiments based on class discussions. Lab topics will support class and text topics and are intended to promote additional understanding. If assigned, lab reports will be graded and count toward the unit exam.

Students are encouraged to discuss issues related to the course with me throughout the semester, either during the office hours stated at the top of page 1 of this syllabus, or by appointment. Drop-ins are also generally welcome, except immediately prior to class.

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**DEPARTMENT OF PSYCHOLOGY: DEPARTMENT POLICY**

It is our belief that serious, hard-working students are cheated by unwarranted extensions of deadlines and postponements of examinations given to other students. Any assignment could be improved by having more time to prepare it; any student who turns in a paper on time could undoubtedly have done a better job, given a few more days. To allow some, but not all, students extra time is unfair. To extend deadlines at the last minute, after some have already turned in an assignment, is equally unfair. By the same token, unwarranted postponement of examinations for some is unfair to those who have prepared as best they can, given their other activities and obligations. In order to treat all students as equitably as possible, the Department has adopted the following policy:

**Examinations**. Hourly and mid-term examinations will be scheduled by instructors at least a week in advance. Examinations will be taken at the scheduled time. Only medical excuses, documented personal catastrophes (such as a death in the family), and religious observances (see below) will be accepted as reasons not to take an exam as scheduled. Having a lot of work to do, several exams in a few days, being generally unprepared, or having conflicting travel arrangements are not acceptable excuses. If you are, for legitimate reasons, unable to take an exam when it is scheduled, notify the instructor in advance of the exam time. If you are unable to contact the instructor because you have had to leave campus, notify him or her within 24 hours of your return of your desire to take a make-up exam, and present any related documentation at that time. Final exams must be taken at the scheduled time (as determined by the registrar's office).

**Papers**. Paper deadlines will be announced well in advance. Late papers may not be accepted and, if accepted, will be subjected to a substantial grade penalty. If you feel that extenuating circumstances should be considered in your case, you may petition for an extension. In general, the same policy discussed above for examinations applies to paper deadlines. The appropriate style for papers is described in the *Publication Manual of the American Psychological Association, 5th edition* (2002). A copy is on reserve in Miller Library, listed under PS 214. Instructors generally keep on file original copies of all papers. Papers with instructor's comments will be available for perusal, but they become the property of the department. If you wish to retain a copy for your files, make and retain a copy on computer disk or a photocopy.

**Religious Observances.** Practitioners of a religious tradition requiring time apart from the demands of the normal work schedule on a particular day (or days) may contact their professors in advance to make arrangements for academic events that conflict with a religious observance.

**Incompletes**. The grade of incomplete will be assigned only in the case of documented emergencies with departmental approval of a written petition.

**Academic Honesty.** The department abides by the following college policy as stated in the *Colby College Catalogue:* Plagiarism, cheating, and other forms of academic dishonesty are serious offenses. For the first offense, the instructor may dismiss the offender from the course with a mark of F and will also report the case to the department chair and the dean of students, who may impose other or additional penalties, including suspension or expulsion... A second offense automatically leads to suspension or expulsion.

**Class Attendance**. Students taking a course in the Psychology Department are expected to attend all meetings of that course. Absences in seminars and in courses involving student discussions, group projects, lab exercises and/or class activities are particularly problematic because such absences negatively affect other students in the course and detract from your overall learning experience. Failure to attend class may lead to grade penalties (as specified by your instructor), and multiple absences may lead to dismissal from the course with a grade of F. You should review your syllabus carefully at the beginning of the semester to determine whether you will have any scheduling conflicts, and should discuss them with your instructor well in advance. There may be extenuating circumstances that prevent class attendance, including family emergencies, illness, and observance of religious holidays. These should be brought to the attention of your instructor. If your reason for failing to attend a class or lab is not accepted by the instructor, you may petition the department faculty (address petitions to the department chair).

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Interview with Joseph E. Atkins, Ph.D.

Instructor for PS272 Sensation and Perception

Spring 2005

Joseph E. Atkins earned his doctorate in “brain and cognitive sciences from the University of Rochester in 2003.” Joe “double majored in computer science and cognitive science at Vassar College (1997) which is why [he] chose to explore academia at a small liberal arts college.”

I chose to interview Joe electronically because by the time we both could schedule a time to talk, he had moved on to a new administrative position at Colby College. Joe has taught as a faculty fellow, and then as a visiting assistant professor at Colby College for three years. Interestingly, Joe, as a non-traditional student himself, has a very different perspective of and style in the classroom.

I have copied Joe’s emailed response to me, leaving his formatting style intact as I suspect it is a “window” to his teaching style.

Responses to questions:

1. How do you engage the students, keeping them interested in the material throughout the semester? What behavior indicates "engagement" or interest?

2. How do you evaluate assigned written work? For example: Does grammar count? Do you offer draft/editing opportunities? Is content graded separately? Or does it depend on the course?

3. How do you define "participation" (philosophically and practically)? How do you grade for participation? What is the purpose of participation, as you have defined it?

4. How do you decide the amount of information required at each level of a particular topic? For example, what is enough information for a 200 level course as compared to a 300 level course?

5. What is the most positively reinforcing factor that has caused you to stay in academia?

1) I think engaging students is the most important, and most difficult, part of teaching a course. These are the skills I've developed to help accomplish that.
   - Be enthusiastic about the material - try to frame topics in ways that relate to the students and present problems where the solutions aren't obvious. For example, vision seems so automatic the details can appear not to matter. This point of view can be diminished by discussing odd visual deficits some patients (human or animal) have after stimulus deprivation, brain lesions, or adaptation. To stress how our perceptions can mislead us I bring up things like the false climbing illusion that lead to the plane crash that killed JFK Jr.
   - There are 2 measures of interest I rely on – first how spontaneously students ask questions or speak up in class, and secondly if they come talk to you about class

topics out of class. When I say some things in class I know certain students are going to react to them, and I can look at their expressions as a gauge to know if they agree, disagree, or are confused. Then I can ask them a follow-up question to try to get others to agree or disagree.

- Getting students to talk in class or ask questions can be difficult, and the best method I've found so far to 'loosen them up' is to start class by asking them questions about any sort of topic to get a conversation going. In S&P this year I started opening class with brainteasers and encouraging brain storming to find solutions. The brainteasers had nothing to do with the class material, but students who've just contributed to a solution are 'primed' to be engaged in the class material, if it's presented enthusiastically.

2) I hate grading; it's the worst part of teaching. That said, only written work pushes a student to show they understand, and have not merely memorized, the material.
    - I typically have some level of expectation regarding the competence level of papers I assign, and grade around that. A paper that matches that level is probably an A-, whereas A's tend to exceed what I'd expected. Papers that fail to meet expectations get B's, and papers that did not approach my expectations get C's. I have given D's on papers, but this generally indicates a paper written at the last minute that did not address the topic or include the required references to primary literature.
    - I generally do not grade the grammar, unless there are so many errors that it's obvious the student did not proof read their paper or that it was done at the last minute.

- Unless it's a major paper I do not advertise that I will review drafts, but if a student comes to me with their paper I always go over it with them. This tends to happen more often early on with a paper that has an unusual topic, and then the request is to help them brainstorm a topic and come up with a rough outline.
- I often use a formula for grading written work that breaks the grade down by different areas – introduction, choice of references, use of references, creativity, readability, summary, etc. Categories related to references get the most weight, followed by creativity and readability. In this format, content is by far the most important factor, but being able to write well and engage the reader is also valued.
- The weight given to different categories does vary depending on the class and the paper topic.

3) If my students are engaged enough to speak up in class that counts as participation for me. I used to make it part of the grade, but its hard to quantify, so now with the exception of seminars I use it more as a basis for awarding bonus point than taking points away from students.
    - At the end of a semester there are always students who are near a grade boundary – this is where participation can make a difference. If a student has been a joy to have in class based on their engagement, I round up. But, I never use lack of participation against a student unless it has been explicitly stated as being a part of the final grade on the syllabus.
    - Seminars are instances where participation is expected and is a part of the grade. Every seminar session should have ample opportunity for everyone to speak up,

either to ask questions or present a point of view. After class I'll take a minute to rate students on how much they contributed to the class and then sum these scores at the end of the semester. This can be problematic for students who are naturally shy and quiet, but its up to them to work with me to find solutions. This was particularly evident when I covered GT's seminar this semester and a student who is painfully shy did a great job contributing to class by virtually scripting her comments before class based on the readings.

4) In a 200 level class I try to cover most (but not all) of the material covered in textbooks. By looking a several texts on the topic I determine what most students will get out of this class and try to focus on that. Then I pick the topics that I think are most interesting or will engage the students and make them key topics. In a 300 level class I try to vary between a general text and primary literature that goes into detail about certain aspects of a topic.
    - In S&P class I tend to overemphasize olfaction because we tend to ignore it in general and a good discussion can arise from whether or not humans rely on chemical signals for mate selection and reproduction as animals do. I always get good participation when I discuss how different periods in history or cultures appraise natural body odors.
    - In my Cognitive Neuroscience seminar I had the class read two books about memory that were geared at the general public, and then individual students gave presentations about memory research and findings. The goal was to have the students be able to think broadly about memory and carry on an informed conversation about it with anyone, and then to be exposed to current research through their presentations and

papers and the presentations of classmates. In between students presentations I chose and presented papers that dealt with the neurological basis for memory formation and recall. Then for their final major presentations I let students pick their own topic as long as it was related to something we'd discussed earlier in the semester and discussed both behavioral and neurological aspects of the topic.

- I think a seminar should have some degree of discovery involved, rather than being fully mapped out in advance. But, the uncertainty would have freaked me out during my first two years when I was not as confident in my ability to tweak the student's curiosity and get them to follow my intellectual lead.

5) Why stay in academia? Without a doubt, its letters from students. When I cleaned out my office I took home a small collection of invaluable letters and notes students have written to me over the past three years thanking me for teaching a class, making it fun, or challenging them. The best example of this was my artificial intelligence seminar last spring that got some students thinking about cognition topics from an entirely new perspective. The fact that we virtually have no idea how to program or teach a computer or robot how to do things that a two-year old can do effortlessly got some students thinking about psychology differently. I got a letter of one of my students nearly a year after graduation saying she had been at a museum and it made her remember something we talked about in class and how she still thought about it. Wow, that was a great reaffirming sign I was in the right place.

Classroom Visit: MUS101 Fundamentals of Music

Instructor: Dennis G. Harrington, M.M., M.Ed., Kennebec Valley Community College (KVCC)

April 19, 2005

I had several reasons for visiting this particular class: Dennis is my significant other; it seems valuable to observe a non-required humanities course (as compared to the two required courses I visited); it seems equally important to discover any contrasts that might be made between a small private liberal arts college and a state sponsored community college; and I felt comfortable sitting in the classroom because music is my considered second language. Additionally, I have taken two separate and different incarnations of courses with titles similar to this course at the University of Southern Maine; I wondered what, if any, differences I might observe.

Dennis' classroom teaching background has not been at the college level, although he has provided trumpet lessons at Colby College for about twenty years. While he has had lots of experience teaching trumpet to the traditional college student, he was "trained" as a public school music educator. This is Dennis' second semester teaching at the college level; he teaches two courses at each KVCC and Thomas College.The Fundamentals of Music course meets twice weekly for one hour and twenty minutes (1:30-2:50 p.m.), and is a brand new course offered at KVCC.

The classroom itself was bright, airy, roomy, and well lit. Windows run along two sides of the room; seating is at tables of which there are three rows of three, each with three-four chairs. The room was equipped with a ceiling mounted overhead projection system, and white boards in the

front of the classroom; the projection screen in also in the front of the room. Of the four registered students (all of whom were in class), three sat at the front tables, the fourth sat in the back row near where I chose to "hide". The first to arrive, I found Dennis checking his equipment, testing speakers, and generally getting ready mentally. As students entered the classroom, he spoke to each, greeting them with their first names.

I was struck immediately by the difference in both the equipment Dennis used in his classroom, and the age-span of the four students. As compared to Colby College, where equipment is not only dedicated to classrooms, it is also *bolted* to the classroom walls and maintained by the Media Services Department, the equipment Dennis had available at KVCC lives in the classroom, but is not consistently set-up and or regularly maintained. Consequently, a huge part of Dennis' preparation immediately before class-time was based in attaching peripherals, logging on to the mainframe, and downloading visual and audio aids from his faculty web folder. (This was not a task that could be lessened by the use of a thumb-drive as happens at Colby.)

A dramatic contrast to the wholly traditional population at Colby College, the range of ages in this course went from the traditional college-age student (Jason in the back of the room) to the adult in the process of retraining for a second career (Mike at the front table). The range of preparedness seemed to be a function of age, although this might have been imagined (or an expectation?) on my part. However, it was clear that the two older students had actively read the material before coming to class, and the two younger students had not. When I remarked on this later to Dennis, he was surprised because the students' grades do not reflect what I perceived as preparedness. Notably, even given the small sample, not all four were day or night students;

rather, two were day students, one was a considered night student, and one was simply taking courses as they interested her. Of the four students, one was a "non-reading" musician who makes his living with his fiddle; none of the others considered themselves musical in any way more than having sung with the church choir occasionally. (*note: I gleaned all of this information from Dennis at the dinner table rather than in the classroom or via a formal interview*.)

As I had suspected, the class topic did prove to be quite interesting! Dennis presented the material in a very different format than I had experienced before, and indeed brought more of a musician's eye to the subject matter. While I suspect the role of this paper is not to do so, I must stop here to editorialize, and say that for this particular subject, the professional musician may be more qualified to teach this topic than the professional "Ph.D.'d" musicologist. There seemed to be a higher expectation for the understanding of music and its components in this class – as compared to the courses that I have taken – that the students seemed willing to grasp.

Dennis began his lecture by mentioning the then current coronation of the Pope, pulling at the students with questions to get them to see the relevancy of the Roman Catholic Church music. By the time the students were nodding their heads, Dennis had segued them into the topic of the day. As the segue was accomplished, Dennis' PowerPoint presentation came onto the screen; the class members seemed comfortable with this even to the point that I suspect they expected the class to begin in such a way.

Dennis' PowerPoint presentation was constructed primarily as an outline of the material to be covered, with *.pdf* examples of musical and musicological notation peppered throughout the slides. Periodically, Dennis would pull out his cornet and actually play the different variations he intended the students to learn to hear. This seemed to impress all of the students! They actually applauded after one particularly involved example. As non-musicians, the students did seem to flounder a little when they were asked to "see" the variations across a musical theme; offering them the opportunity to listen as they followed along with the written music seemed to be an effective method for this particular group.

Rather than reiterate the entire lecture (I did take copious notes!), I am going to bullet my notes specific to Dennis' classroom behavior, in the next section, to be followed by my own thoughts regarding those behaviors. (Please refer to the Interview portion for further comments and explanations.)

- Calls out questions
- Writes key words on the board
- Explains keywords in "lay-like" terms
- Stands in front of the class, wandering back and forth as he needs to write on the board
- Regularly stops to ask, "Does that make sense?"
- Review of previous lecture(s) inserted to current lecture in PowerPoint
- Takes questions, and even corrections, from members of the class without breaking his stride or embarrassment
- Allows for "reinterpretation", e.g., at one point, when his notation seemed confusing to everyone, a student offered another way to notate the same material. Dennis accepted this, and even thanked the student for helping to make the information clearer for the others

- Offered flashback comparisons to other concepts already "practiced" to make the point of the value of the new topic
- Read from and added to *.ppt* by writing on the board throughout the class period
- Stops frequently to answer questions
- Proactive attempt to get the class members to remember old vocabulary
- Stopped talking to the entire class about an hour into the class, addressing only one student
- Disjointed wrap-up – tired?

Overall, I found the class engaging, interesting, and evenly paced. Dennis effectively presented the material, included each member of the class frequently, and was a professional in the classroom. While the live demonstrations were entertaining, they were also a valuable listening tool which seemed to serve the purpose of offering a learning experience and cue for the students. Dennis seemed to know the topic enough to allow reinterpretation of information without giving the impression [to the students] that they had missed the point that he was making. I must also add that as my significant other, Dennis was forced to listen to my assessment of his classroom at the dinner table that night, along with my questions about lecture material that seemed to not make sense. To his credit, as he had performed in the classroom, he graciously accepted my "criticism" and followed through by clarifying particular points at the next class meeting.

Dennis' one classroom behavior that troubled me – primarily because I know it can happen to anyone – was his disjointed wrap-up. As a member of the class, I could feel the confusion that he was apparently experiencing; it seemed we were all watching the clock hoping for the class to end – including Dennis. When I asked him about this, he admitted that he was feeling a little

flustered as he approached the end of the class-time about whether or not he had covered everything that the students needed to hear before the next exam; he was running the exam in his head, looking for last minute bits of information that would be needed for the students to be successful. His "fix" for this was to e-mail the class with additional information and cues toward each being equally prepared for the exam.

What did I learn from this visit? On the personal side, it was refreshing to sit in a classroom with non-traditional students again, and the material was interesting as well as informative. On the professional side, I was treated to a very successful PowerPoint presentation, one during which the students were not disengaged, and in fact, seemed to be enticed into becoming more engaged in the material and the rest of the classroom. It was also interesting to see a lecture format "performed" for only four students, which incorporated live, audio, and visual aids. If I were asked to rate this class-time, I would give it a 9 – I think it definitely was a successful learning experience for me as I consider the possibility of teaching at the college level, offering me an example of a well-managed classroom.

**KENNEBEC VALLEY COMMUNITY COLLEGE**
**FAIRFIELD, MAINE**

**Department of Humanities & Social Sciences**

| | | | |
|---|---|---|---|
| **COURSE NUMBER:** | MUS101 | **CREDIT HOURS:** | 3 |
| **COURSE NAME:** | Fundamentals of Music | **CLOCK HOURS:** | 45 |
| **INSTRUCTOR:** | Dennis G. Harrington | **OFFICE HOURS:** | |
| **OFFICE:** | | **VOICE MAIL:** | 5320 |
| **E-MAIL ADDRESS:** | dharrington@kvcc.me.edu | | |

**TEXTS:**

Wright, Craig. Listening to Music, 4th Ed., Minneapolis, MN: West Publishing, 2004.

Wright, Craig. 6-CD Set to accompany Listening to Music, 4th ed.

**COURSE MATERIALS:** Additional readings and listening provided by the instructor

**PRE/CO-REQUISITES:** None

**COURSE DESCRIPTION:**

What is there about music that causes one to have strong emotional reactions? Why do we call some sounds music and other sounds noise? When we listen to music what is it that we are hearing? The Fundamentals of Music course aims to develop an understanding of music and enhance the listening experience. Students will examine elements of music, trends, influences and styles in music from various time periods and cultures. The study will include examples of music from various styles, time periods and cultures. Emphasis will be on listening and discussions. No previous musical experience is required.

**COURSE OBJECTIVES:**

Upon successful completion of this course, students should be able to:

1. Identify and define common elements of music.

2. Identify common elements of music as demonstrated in music of various styles, time periods and cultures.

3. Identify and define key elements of and trends in music from various styles, time periods and cultures.

4. Identify changes and influences in the development of music styles.

5. Identify people who have been prominent in creating and developing major music styles.

6. Demonstrate an ability to think critically about topics and compositions by writing "position papers".

7. Demonstrate an understanding of music elements and compositions through participation in discussion questions.

**COURSE OUTLINE (Topical):**

1. Basic music elements
2. Music's temporal elements
3. Music's structural base
4. Music of "classical" periods
5. Music of "folk" styles
6. Music of "jazz" styles
7. Music of world cultures

**COURSE ACTIVITIES:**

Students will be required to participate in classroom and/or on-line discussions, write papers, present information in class and take exams. Students will need to submit papers on-line.

**COURSE REQUIREMENTS:**
**Grading:**
A total of 150 points may be earned. The breakdown is as follows.

Position Papers ……..…… 40% (60 pts)
General Participation and Assignments …….. 30% (45 pts.)
Exams ……..… 30% (45 pts.)

**ATTENDANCE:**

For the online form of this course, lectures may be delivered using audio and/or video files. Students must log in regularly to keep up with course requirements. All assignments are due on the date assigned. Participation in discussion questions is required within the defined time period. For classroom forms of the course, regular attendance is required, and the instructor will provide specific guidelines. For online or classroom versions, the instructor reserves the right to consider unusual and/or extenuating circumstances.

**STUDENTS WITH DISABILITIES:**

In accordance with Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990, this College is committed to assisting qualified students with disabilities achieve their educational goals.

If you are in need of academic accommodations in this course, you MUST contact the Disability Counselor in Room 108, King Hall, 453-5019. You MUST provide appropriate documentation of your disability and make a request for accommodation to the Disability Counselor. Request for accommodation must be renewed each semester for each course.

This syllabus is available in enlarged print and on audio tape. Please contact the Disability Counselor in Room 108, King Hall, to obtain these.

Revision Date: April 7.2004

**KENNEBEC VALLEY COMMUNITY COLLEGE**
**FARIFIELD, MAINE**

**Department of Humanities & Social Sciences**

**COURSE NUMBER:** MUS101
**COURSE NAME:** Fundamentals of Music
**INSTRUCTOR:** Dennis G. Harrington
**SEMESTER:** Spring 05

## COURSE POLICIES

**ATTENDANCE:**

Regular and consistent attendance is expected. Students are expected to be on time and ready to begin class at the designated time.

Class participation is an important part of the course. Participation in discussions and work in class will be counted in determining the general participation part of your grade. Material presented in class may also be included in exams, assignments and papers.

If you will be late, it is expected that you will email the instructor prior to the class with the reason. When entering class late is necessary, it is expected that you will make every effort *not* to disturb the class that is in progress.

If you must leave class early, it is expected that you will email the instructor prior to class with the reason. When leaving the class early, it is expected that you will make every effort *not* to disturb the class that is in progress.

**EXAMS**:

You will be expected to be present for scheduled exams. If you need to be absent, it is expected that you will email the instructor prior to the exam with the reason for missing the exam. The instructor reserves to right to determine if an excuse is valid.

Students excused from an exam will have up to one week to take a make-up exam. Make-up exams for unexcused absences will be at the discretion of the instructor.

**PAPERS**:

You will be expected to submit papers by the specified due date and time. Papers must be written using MS Word or a compatible format. Papers must be submitted either as an email attachment or through WebCT.

Late papers must be submitted within one week of the due date. Points will be deducted for late papers as specified in the assignment.

**ASSIGNMENTS**:

Assignments given as part of class sessions must be prepared and submitted by the specified date and time. In general, assignments will be given in conjunction with class work and discussions. It is expected that assignments will be prepared prior to the specified class session. Assignment must be written using MS Word or a compatible format unless otherwise specified by the instructor.

Late assignments will be accepted at the discretion of the instructor. Points may be deducted for late assignments.

**CLASSROOM DECORUM:**

The classroom is a place for learning and the exchange of ideas. It is expected that everyone will act in a courteous and respectful manner.

Being a class with a focus on music, it is expected that you will use appropriate listening skills when music examples are played. Appropriate listening conduct will be provided by the instructor.

**COMMUNICATIONS**:

Information regarding assignments, grade status, and other communications may be done through email and WebCT. You are expected to check email and WebCT on a regular basis.

Information regarding assignments and exams will also be provided in class. If you are absent from class it is your responsibility to obtain information provided in class.

**GRADING**:

Letter grades will be assigned as follows.

| Gr. | Pts. Needed | Gr. | Pts. Needed |
|---|---|---|---|
| A | 143 – 150 | C | 113 – 116 |
| A- | 138 – 142 | C- | 108 – 112 |
| B+ | 132 – 137 | D+ | 102 – 107 |
| B | 128 – 131 | D | 98 – 101 |
| B- | 123 – 127 | D- | 90 – 97 |
| C+ | 117 – 122 | F | 0 – 89 |

[Note: Course policies are subject to change.]

Interview with Dennis G. Harrington, M.M., M.Ed.

The Instructor for MUS101 The Fundamentals of Music

Spring 2005

Dennis is an adjunct Instructor of Music at Kennebec Valley Community College, and Thomas College. He started at KVCC in the Fall 2004 in response to the incorporation of a music humanities component at KVCC. Dennis earned his Master of Music at Ithica College, specializing in Music Education; he earned his Master of Education at Seattle Pacific University, specializing in Learning Theory. Dennis is recognized as a professional trumpet player throughout New England, and is a member of the Colby College Orchestra, as well as many other small groups in the State of Maine. He is currently teaching trumpet at Colby College, teaching two music courses at Thomas College and at KVCC, and is the only member of the newly conceived music department at Kennebec Valley Community College.

Because Dennis and I share not only our home, but also the label “teacher”, conducting a formal interview did pose several problems. Occasionally we slipped into “discussing” teaching techniques and philosophies rather than following my written interview script – this slippage may resurface in this paper. Additionally, we were able to allow the interview to carry over into our dinner table conversation – again, this may seem apparent to the reader as this report progresses. We did try to stay within three major topics: the engagement of students, content versus quality in writing, and participation as it relates to grading; I asked limited questions about grading in general, and “lagging” students. All of the answers are in my words drawn from my notes on Dennis’ words.

*Question: How do you engage the students in your classes? For example do you bring your own personality and or activities into the classroom for the students to use as a reference? How do you define engagement, and what behavior do you think you manifest as you attempt engagement?*

During the first few class meetings, it's important that the students come to understand not only the requirements of the course, but also the logistics of the class meetings and assignments. For example, during the first class meeting, an outline of the course is handed out in addition to the syllabus. The outline addresses school and course policies, details of the syllabus, and a general explanation of the specific objectives of the course. This outline is designed to offer students the opportunity to ask questions, express concerns, and comment on their expectations.

A part of the general logistics of the course is the ability to write and receive e-mail; in fact, the first assignment is to send an e-mail [to Dennis] which includes the student's: experiences with music; favorite genre; level of exposure to music; previous courses in music; course expectations; questions about the instructor; special topic requests; and any personal questions about the instructor. Dennis responds to each e-mail personally. While the e-mail is a graded assignment, it is not graded for content or grammar; credit for having simply sent and received an e-mail is recorded as participation. Dennis sends a similar e-mail to the entire class, including all of the same components, written from the instructor's point of view.

The stated purpose for the e-mail assignment is to find a baseline of knowledge and personality. The manifest benefits of the e-mail assignment are at least twofold: the students are forced to use the technology, and Dennis gains a better sense of the level at which he will be required to teach. Another intended benefit is that the students have serendipitously gained a personal connection to both the instructor and the material. Dennis believes this exercise gets the students thinking about their own contribution to the class, and he often draws on their e-mailed comments to start conversations (a.k.a. discussions) in class.

*When I asked if he shared the e-mails with the members of the class*, he adamantly responded that he could see no purpose to that as a regular practice, although on the rare occasion that a student writes comments that are particularly relevant to the entire class, he will, with permission of the writer, forward the e-mail to the other members of the class.

A second exercise that Dennis starts with in the beginning of the semester uses throughout, with the intent to engage the students, is what he calls “Rate the Record”. A prepared collection of musical pieces drawn from a variety of genre is played for the class. Each student is asked to rate each piece according to his or her personal taste, and also to explain “why” they feel the way they feel about a particular piece. Dennis uses this exercise himself as a way to put names and e-mailed missives to the faces in the classroom; he believes the students gain a sense of camaraderie as they participate in this “game”.

*Question: How do you maintain the engagement or personal connection after the first week of class? What is the hoped-for student behavior?*

Dennis maintains the students' connection with the course by reminding the group regularly that learning about music is really the act of participating in a conversation about music continually as they progress through the course. He knows when he has successfully engaged the class when everyone seems comfortable talking about music and offering their comments about the course, when the comments are actually valuable to the particular discussion, and when those discussions spontaneously continue through the semester.

*Question: How do you define participation? How do you apply a grade for participation?*

The purpose of participation, or a loose definition of participation, is the involvement of the student in: 1) an exchange of knowledge; 2) student to student communication; 3) student to instructor communication; 4) student to him/herself communication. Participating in a course is to "actively communicate ideas on the topic" to the class and or personally to the instructor. The alternative of communicating directly to the instructor is designed to offer the act of participating to the shy or uncomfortable student. Active participation (regardless of the recipient) is a critical component in the process of learning; it is "an exercise in learning how to think about a topic rather than learning how to speak in the classroom."

Dennis grades participation on several levels, and in fact has an intricate grading scheme for his courses; participation is generally worth 15% of the course grade. While the grading of participation in a face to face class is inherently subjective, Dennis does watch for specific behaviors for which he periodically applies point value. Those behaviors include, but are not

necessarily limited to: being prepared for a planned discussion; spontaneous discussion; responding to questions asked of the class; and general engagement (wakefulness). He admits that while he will often announce that there will be a discussion in the next class, he also expects that the students understand that the syllabus and attachments, by virtue of listing topic dates, imply that a discussion could be initiated at any point, that is to say, he expects his students to be read and prepared in advance in order to contribute to "spontaneous" discussions.

*I asked Dennis what he does when he discovers (by checking his grade-book) that a student may be failing the course based only on non-participation.* His response to non-participation, in general, is to e-mail and or stop the student after class to ask if the student might need help, or is uncomfortable about something that Dennis can "fix". As this rarely happens in his classes, he expects that the opportunity to privately contribute to discussion negates the potential for failing by not participating.

*Question: What do you look for in a writing assignment? Do you grade for content? Do you grade for grammar? Is it possible to fail a writing assignment because it's grammatically unreadable? What types of grade-producing writing assignments occur in a music class?(These questions were designed for Dennis because I happen to know his philosophy regarding writing assignments.)*

Dennis requires e-mail and online posting under the heading of "written assignments", although he does not apply his regular writing criteria to either when it comes to grading; as mentioned previously, electronic communication is considered primarily participation in Dennis' classroom.

Dennis does require several different "kinds" of written assignments that are graded both for content and quality. The first is what he has dubbed the "Resource Paper". The Resource Paper is a fact finding exercise for which the student has been asked to "research" 3-4 topics; each student or student dyad is assigned particular topics by Dennis. The purpose of the paper is to create a resource "book" which can be used by the class as a study guide through the semester, in anticipation of exams and or discussions. Each topic should be succinctly covered in no more than 2-4 paragraphs, and must contain general information along with two annotated references for further reading.

A second style is called a "Topic Paper" which is just what it sounds like: the student chooses a topic on which to write, from a list provided by Dennis. They may write as little or as much as they like, but must include an annotated reference section, and the content must be in sensical and logical order. Other writing assignments include written answers to discussion questions that the student might not have felt comfortable saying in the classroom situation, and opinion papers, which are usually the written responses to exercises such as "rate the record".

All written exercises (with the exceptions of electronic communication and exam essays) are subject to refusal based on readability. All written exercises may be re-edited once before a final grade is assigned to the paper. All written exercises may be handed in multiple times for editing up until the due date, at which time the one-time opportunity for rewriting kicks in. The purpose of this policy is to teach the students to write about the topic in a way that can be read easily and clearly. In the case of a student not taking advantage of the rewrite option for a considered unreadable paper, the paper is assigned a zero. Along with the re-write option, there are stated

and clear due dates, and penalties that are associated with those due dates; penalties are doled out as it is appropriate.

With regard to written assignment grading criteria, the weight of content versus quality varies according to the assignment. Because music is a topic centered course, content is necessarily the primary concern. Sometimes grammar counts heavily, as in the example of the Resource Papers, when it is important that others can understand the content of the research. Occasionally, grammar is considered a minor issue, as in the case of a short answer exam question. Overall, the criteria is simply that the "…writer [exhibits an] ability to communicate good content. Generally, a relatively well-written, solid content paper will net a good grade." Dennis did add that he watches for dramatic or striking correctness in written assignments. If he notices that a student has many spelling errors on a hand-written exam, but writes amazing sentences that are grammatically correct and appropriate in written assignments, he will arrange a meeting with the student to be sure that the amazing writing ability isn't "an indicator of something else going on."

*And finally, I asked Dennis about his grade break-down: How do you weight each component of the course?*

Exams: 15%
Participation: 15-20%
Papers ("everything else"): 65-70%

Dennis is less interested in fact-regurgitation, than whether or not students can use certain information about people and music, and translate that information across different periods of

time as it may impact different eras, etc. He wants students to understand how technology et al. can create milestones while influencing the discipline; and to learn context as it relates to content as well as how the two are related. In one sentence: he wants them "to get the *meaning* of the facts rather than *just* the facts."

As a wrap-up, I have to admit that I was pleasantly surprised to discover that Dennis is an excellent classroom teacher! In an attempt to handicap myself to prevent any unintentional bias, I applied much more stringent criteria as I interviewed Dennis (as compared to the other two interviews), requiring much more depth and far less face-value acceptance of his answers to my questions. Also, because I tend to "win" most of our "discussions" about our shared profession in the context of our personal world, I was impressed by his candor and genuine thoughtfulness as he framed his answers about his professional philosophy and practice. While I would never actually tell Dennis this, I am pleased to report that of the three college instructors whom I interviewed, he seemed to be the least egotistical, and most enthusiastic, organized, and professional instructor I have seen in the classroom in many years.

Classroom Visit: PS214 Research Methods and Statistics

Instructor: Diane S. Winn, Ph.D., Colby College

Spring 2005

The particular "Stats & Methods" course that I visited is a course in which I am considered the assistant (see the course syllabus), and is offered as a requirement for the sophomore major in psychology at Colby College; it is taught by the Department of Psychology. I have acted as the course teaching assistant/associate, tutor, and webmaster since 1992. I have not been required to attend (or sit in on) the classes on a regular basis until recently. This course is not universally taught as one course in the *field* of academic psychology; it is often broken into two courses at other institutions ("Statistics for Psychology" and "Psychological Methods").

As of the Fall 2004 semester, I have been receiving nominal teaching credit for my role as assistant in the newly implemented laboratory component for the course (added Fall 2004), "Research Methods and Statistics Laboratory". By mutual agreement, as considered team-teachers, both Diane and I are present for all class and laboratory meetings in order to (1) know what Diane actually presents in her lectures as it is presented, and (2) witness what occurs in the laboratory situation. It does seem relevant to offer the caveat to this classroom visit description that after having taught with Diane for so many years, I have nearly memorized her lectures, and in fact often find myself anticipating class reactions to classic psychological statistical examples as they are presented by Diane. There are few surprises in a math course that is taught twice a year and at the same time of day in both semesters; most student reactions and consequent faculty interactions tend to fit a predictable pattern. Rather than describe one specific class-time,

I will try to offer an amalgamation of all of the class meetings across this past semester (Spring2005), as the class is taught currently, and as it compares to its traditional format.

The class meets twice weekly for an hour and fifteen minutes (2:30-3:45 p.m.); additionally, the students break into two sections for a laboratory that meets once a week for 50 minutes (Sec I: 1:00 p.m., & Sec II: 2:30 p.m.). The classroom seats about 30 students, and is outfitted with white-boards, a computer, and overhead projection; it is a typical, carpeted Colby classroom with windows along the back of the room, white-boards along two sides, and one entrance at the front of the room. There are several notable non-Colby characteristics of this classroom: it is the only classroom on a floor that is primarily dedicated to Special Programs (events); it is away from the psychology department and its offices and resources; and the Department of Psychology itself is segregated from the other academic departments at Colby.

The laboratory for this course is a suite of 7 separate and small rooms, in which there is at least one (sometimes two) computer workstation(s) set up. The workstations are complete desktop stations, carrying the “college package”, specialty statistical software, the intranet, and the internet; the students are allowed to logon as “administrators” in order to save (or email) their assignments in the case of not finishing before the end of the scheduled laboratory meeting. Laboratory review and instructional lectures are given (by me) in the largest of the rooms; students are sent out to the other stations to complete the weekly assignments while Diane and I “roam the halls” ready for questions. The laboratory suite is across the hall from the regular classroom, and is unoccupied during the class meetings; that is, it is a dedicated space for the purpose of the Research Methods and Statistics Laboratory.

Upon entering the Stats & Methods classroom, the 18 students found Diane's PowerPoint presentation "on"; the first slide stated the topic for the day and showed a picture of a different baby bird for each class meeting. (Diane runs AvianHaven, a bird rehabilitation facility in Freedom, ME.) After handing out the printed version of her presentation, Diane quizzed the students on what they thought the baby bird would grow up to be – "Do you think this is a baby robin…? Noooo.." Diane then launched into her lecture, advancing slides as it was appropriate, stopping regularly to check for questions or comments. Diane used questions about, and examples of, odd data and or odd historical studies to grab the students' attention. For example, she might offer them a description of the classic Pepsi/Coke taste preference study to get them to question the validity of the particular methodology or statistical test used. This basic format was followed by Diane throughout the course, varying only slightly as the topic shifted from statistics to research methods.

Because I have an intimate history with this particular course at Colby, I cannot resist offering comparisons between "pre-lab component" years of this course, and "post-lab component" time. The most conspicuous difference between past incarnations of the course and the format implemented this year (04/05) is the use of PowerPoint by Diane in the classroom, as a lecture medium. Traditionally, Diane has relied on the white-board and transparencies (as have others teaching this course); values-tables were copied and handed out, along with any other extra and or necessary information such as data sets.

At the beginning of the fall 2004 semester, the addition of PowerPoint seemed amazing! We decided to use the medium for the projection of formulae and values-tables. I electronically created formulae and tables for Diane; she put them into PowerPoint slides, while I "manned" the overhead projection remote – it took us no time to efficiently choreograph the necessary dance! When it came time to plan for the Spring 2005 semester, it seemed intuitive to attempt to break down the formulae, data sets, and tables into meaningful components onto individual slides that could be incorporated directly into the lecture; this effectively forced the lecture material to migrate onto the slides - and off the printed page - almost immediately. Projection of data sets and formulae also caused a limited use of the white-board because almost everything that might be written out was already typed into the presentation.

The effect of using PowerPoint was striking! As a "visitor" and assistant in the classroom, I take meticulous notes, careful to discover any changes in Diane's presentation and or examples – I must seem busy, because it has already become usual for the students to ask halfway through the semester if I'm taking notes on *their* behavior! My own notes have proved invaluable when it comes to restating Diane's premises to confused students; I know her lectures are organized and thorough. The drama of PowerPoint did not impact my behavior in the classroom; however, the student behavior shifted remarkably.

The group in the fall took notes determinedly, asked for copies of each other's notes (and mine), and even begged to have additional outlines posted on the class web page (which we did occasionally do). The fall class members asked questions in class when confused, and even offered "opinions" about the statistics and practices they were being asked to learn. The spring

class, on the other hand, almost immediately slipped into obvious passivity. Rather than taking notes, they were sure to request a copy of Diane's PowerPoint slides when it wasn't immediately offered. At about two weeks into the semester, Diane began to print enough copies to hand out to each student at the beginning of class. We did not post these presentations to the web. It took only about five class meetings for the students to put their pens down; it actually seemed too confusing for them to follow the lecture, the lecture notes, and to *take* notes all at the same time. While the students did ask in-class questions frequently through the first half of the semester, questions and comments dwindled to none as the semester progressed. By the time the students were preparing for the second exam, they held their questions for lab meetings and or my (and Diane's) office hours. My out-of-class time commitment to students increased exponentially during the spring semester, as compared to the immediate past semester as well as over the last 12 years.

Interestingly, Diane was able, via the PowerPoint presentations, to fly through time-tested lectures. Printed, spoken lectures that have traditionally filled the hour and a quarter lasted sometimes only 55 minutes; she was hard-pressed, often, to fill the entire class-time. Students who had dozed through the new lecture medium were clearly not prepared to ask questions, and so frequently the class was let out much earlier than the schedule permitted. (*note: Diane and I have wondered aloud to each other how she should fill the extra time in the future. For example, is this an opportunity to force more information into the course outline, or would it be more valuable to incorporate a requirement of participation in the form of formal discussion? See the interview component of this commentary.*)

What is intriguing about this phenomenon is that PowerPoint was deliberately brought into the classroom as a considered progressive pedagogy, but indeed seemed to have evoked a reverse effect on the classroom. Rather than increased engagement and or understanding on the part of the students, they seemed to revert to a more traditional model of passive listening, passing the time until the next exam (or coffee break!). Students began to look for typos in the text rather than information as they read; they watched in class only to know that nothing was written on the board in addition to what was printed on the handout; the general atmosphere in the classroom became "sleepy" and time-marking.

Having spent many years assisting several different instructors in the Colby psychology statistics classroom, I do think that Diane's techniques and experiences are relatively typical with regard to student engagement and success. Not surprising, the fall 2004 grade distribution was significantly higher than previous and past samples. This effect can easily be attributed to the fact that both the students and the instructors were acutely aware of the new methodology combined with the addition of a formal laboratory experience. What is surprising is the negative impact of the "new technology" in the second semester. As a "participant observer", I was aware throughout the semester of the significant increase in the amount of time required to produce the PowerPoint lecture, and also of its impact in the classroom on the students and the primary instructor.

What did I take away from this "visitor" experience? Clearly, new technologies in the classroom can offer a positive impact when used sparingly. However, this past semester has as clearly been an example of how one cannot simply move the spoken (printed) lecture onto electronic media

and expect positive results; the spoken lecture is still a spoken lecture, whether it is read from a sheet of paper or a projection screen. If it were up to me to tweak Diane's current method, I may be tempted to change only when the lecture slides were made available; it may be that posting the PowerPoint presentation after the relevant class meeting would eliminate the "apparent" negative impact of the medium, potentially causing the slides to become a "back-up" of student hand-written notes, effectively re-engaging the class members.

**PS 214 RESEARCH METHODS and STATISTICS Spring, 2004-05**

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**Instructor**: **Diane Winn** (Prof. of Psychology): Ro. 336, *dswinn*, x 3144

**Assistant**: **Colleen Burnham** (Teaching Associate in Psychology): Ro. 311, *cjburnha*, x 3407

**Texts**: Jackson, S. (2003).*Research Methods and Statistics: A Critical Thinking Approach*

American Psychological Association (2001). *Publication Manual* (5th Edition)

| **Date** | | **Tentative Class Topic** | **Text Chapts.** |
|---|---|---|---|
| February | 2 | Introduction & Course Plan | |
| | 7 | The Scientific Method | 1 |
| | 9 | Searching the Psychological Literature | 1 |
| | 14 | Measuring Behavior; Reliability & Validity of Operational Defs. | 2 |
| | 16 | Descriptive Research: Observational Methods; Surveys | 3 |
| | 21 | Survey Strategies Cont'd. | 3 |
| | 23 | Introduction to Data Analysis: Graphs, etc. | 4 |
| | 28 | Intro. to Descriptive Statistics: Central Tendency & Variability | 4 |
| March | 2 | Descriptive Stats. Cont'd.; Standard Scores; the Normal Curve | 4 |
| | 7 | **Exam 1** | |
| | 9 | Ethical Considerations in Psychological Research | 12 (pp. 262-274) |
| | 14 | Correlational Research Methods and Statistical Analysis | 5 |

| | | | |
|---|---|---|---|
| | 16 | Intro. to Inferential Statistics; Sampling Distributions | 6 |
| | 21-23 | [Spring Break – No Class] | |
| | 28 | Confidence Intervals; Hypothesis Testing | 6 |
| | 30 | Statistics for One-Group Research: Z, t, Chi2 | 6 |
| April | 4 | Experimental Research; Control of Extraneous Variables | 7 (omit 155-156 & 162-165) |
| | 6 | Writing Research Reports in A.P.A. Format | 12 (pp.274-287) |
| | 11 | **Exam 2** | |
| | 13 | Between-Ss Designs for One I.V. & Two Levels; The t Test | 8 |
| | 18 | Addl. Stats. for Two-Group, Between-Ss Designs: U, Chi2 | 8 |
| | 20 | Within-Ss Designs and Statistics (t and T) | 7 (155-156 & 162-165), 8 |
| | 25 | Between-Ss Designs with One I.V. & Three or more Levels; One-Way Analysis of Variance | 9 |
| | 27 | Factorial Designs & Two-Way ANOVA | 10 |
| May | 2 | Quasi-Experimental Research; Single-Subject Research; Qualitative Research | 11 |
| | 4 | **Exam 3** | |
| **TBA** | | **Final Exam** | |

**GENERAL COURSE INFORMATION**

**Exams**. Three in-class exams are scheduled. Exams from a previous course may be used as practice exams; they are posted at *http://www.colby.edu/psychology/ps214WINN/PracticeExams*.

If, for legitimate reasons (see *Psychology Dept. guidelines*), you are unable to take an exam on the day it is scheduled, notify the instructor no later than the class hour of the exam day so that other arrangements may be made. Failure to notify the instructor may result in your being assigned a zero as a score for that exam.

**Final**. The final exam will be an analysis and discussion of a journal article; cumulative course information will be tapped. A *final exam from a previous course* is also posted at the above website.

**Research Proposal.** A research proposal will be submitted toward the end of the semester. It will include a review of past research on a psychological phenomenon, the formulation of a question about that phenomenon, and a description of methodology to be used in answering the question. The investigation proposed in this paper is NOT ordinarily the one to be carried out in PS 415. The last day on which the research proposal may be submitted is May 9; earlier submissions are encouraged. Instructions for preparing and writing the paper are provided in a separate handout.

**Labs and Lab Assignments.** In the lab that accompanies the course, you will participate in a number of exercises designed to enhance your course skills. Each one will involve an assignment that will either be completed in lab or due by the beginning of class on the following Monday. Some of the assignments will focus on statistical analyses: the main objective of these assignments is to submit calculator-based and computer-based answers that match, supported by (a) all the steps necessary to reach the calculator-based answer and (b) a print-out of the SPSS result. If your first attempt to calculate a statistic does not produce an answer that matches the SPSS result, review your calculator-based process to find your mistake.

**Grading**. Grades on all exams will be based in part on your absolute performance (i.e., the % of total possible points you earned) and in part on standard scores (i.e., on the mean and standard deviation of class performance). The weekly lab assignments will be graded on a 4-point system. Each of the three semester exams, the final exam, the research proposal, and your total accumulation of points on lab assignments will count equally toward your final course grade.

**Attendance Policy.** You are expected to attend every class and every lab. Lab attendance is particularly important; if you miss a lab, you will have 1 point automatically subtracted from the assignment grade even if you hand it in on time. Grade penalties for missed classes will be assigned at the discretion of the instructor.

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Last Modified on by *cjb*

Interview with Diane S. Winn, Ph.D.

The Instructor for PS214 Statistics and Research Methods

May 31, 2005

As mentioned in the class visit report, I am the assistant in the Statistics and Research Methods course at Colby College. Diane and I talk regularly about the course format, her expectations of the course, and her teaching techniques. Diane and I opted to do this interview via e-mail rather than interacting face to face in order to (1) allow Diane to stay home for the summer, and (2) give Diane the chance to frame her answers specific to the class that I "visited".

Diane is a full Professor of Psychology at Colby College. She came to Colby College in 1974 after having earned her doctorate at Brandeis University, specializing in Sensation & Perception [Psychology]; she is a recognized expert in the McCollough Effect. Diane is currently the only instructor of the Statistics and Research Methods course in the Department of Psychology at Colby College.

I asked Diane five questions with the caveat, "…feel free to editorialize, rework a question so that you feel better about answering it, or whatever…" I have simply typed my questions and Diane's answers below, annotating when it seems I may expand on Diane's or my own thoughts.

*Question 1*

*How do you engage the students, keeping them interested in the material throughout the semester? What behavior indicates "engagement" or interest?*

*Diane*

Keeping the students engaged in a required course is a major challenge! For content, I try to illustrate the material with anecdotes that they can listen to, rather than take notes on for future memorization. For style, I try to move around and seem at least somewhat animated. In class, I can operationally define "engagement" in terms of the students being awake, looking at me, asking questions, etc. But another way to facilitate engagement is to give them things to do in lab or in other outside-class settings that involve more than reading and writing – anything that requires an interaction with other people seems to help. Ironically, although the use of powerpoints might in theory facilitate engagement (students don't have to be frantically scribbling down notes), I suspect that any facilitation is counterbalanced by a lack of engagement (students don't have to pay attention to what is said in class, because they know the important points are on their handouts). Finally, I try to keep students engaged by asking them to speak in class (see "participation" section below).

*Question 2*

*How do you evaluate assigned written work? For example: Does grammar count? Do you offer draft/editing opportunities? Is content graded separately? Or does it depend on the course?*

*Diane*

I do grade both in terms of content and style/grammar; both are factored into an overall scheme, so they are not graded separately. I do offer draft/editing opportunities.

*My thoughts* In fact, the psychology department policy (at Colby College) is students are to formally schedule draft and editing opportunities with the particular instructor, and informally with me (the department teaching associate). Students are expected to turn in a "perfect final paper" for all formal paper assignments as a result of this proscribed editing process. In the case of essays, quizzes, thought pieces, the norm is for the student to use resources such as favored faculty and or teaching associates; there is also a Writer's Center at Colby College which students are encouraged to visit. Specific to the Statistics and Research Methods course, the students spend two laboratory periods tearing apart a "badly written" paper; this exercise is intended to prepare the student to write his or her own 5 page research-based paper as a requirement of the course.

*Question 3*

*How do you define "participation" (philosophically and practically)? How do you grade for participation? What is the purpose of participation, as you have defined it?*

*Diane*

> Participation is something I would look for more in a seminar than in a basic course like research methods. But there are some specific occasions on which I seek out responses – either by asking specific, rather simple questions (like "now what do you think would happen if…") about the material or more generally by asking for opinions on more complex issues (like "do you think this experiment was ethical?"). The purpose of participation in this course is to keep the students engaged.

*My thoughts* My intent with this question was to try to tease out a way for grading for participation. Almost all instructors (including Diane) list participation as a contributing component for the assignment of a final grade – the variety of answers have proved interesting, to say the least.

*Question 4*

*How do you decide the amount of information required at each level of a particular topic? For example, what is enough information for a 200 level course as compared to a 300 level course?*

*Diane*

> That decision is made on the basis of a combination of factors, the two most important of which are what I think the students should know at that level, and what I think they are capable of mastering. The first factor is what I think the question addresses – but it's not a process I can describe. Rather, it's something one seems to develop a sense of over a period of time. With regard to the second factor: Over 30 years of teaching, I have seen a marked decline in abilities of students. So like most of my colleagues, I have "dumbed down" my courses every so often. I can't imagine expecting students of today to grasp as much as the students of the 1970s or even 1980s. There's definitely been a change in what students bring to college classrooms from their secondary educational experiences.

*Question 5*

*What is the most positively reinforcing factor that has caused you to stay in academia? (This can be TIAA CREF, if it's the truth… ;-) …)*

*Diane*

> That factor would be the lack of classes in the summer. It wasn't always that way, but college education today seems to operate on the "consumer satisfaction" model, and there isn't much satisfaction in teaching per se any more.

*My thoughts* I found this answer disturbing both because I know Diane well enough to suspect that the times have influenced her perspective negatively, and because it seems critical to the educational experience that students see and feel an instructor's excitement in any topic. I know that the politics of being a post-secondary educator are draining to say the least, and I suspect that after 30 successful years of teaching, Diane has finally given in to enjoying the three summer months away from her teaching duties.

THOMAS COLLEGE

NEW COURSE PROPOSAL FORMAT

To be used to request approval of a new course.

Introduction

The proposed course will be an addition to the present offerings, and it is not expected to replace or duplicate any other courses offered at this time. It is recommended as an *undergraduate elective* listed in the Psychology (PS) offering section.

Proposed Catalog Entry

Designation *Psychology*

Title *Ethics in Science: An Introduction to Applied Critical Thinking*

Course description as it would appear in the catalog.

This course is a seminar style class for the discussion of practical and professional ethics and responsibilities for the undergraduate scientist; it will consist of the examination of classic studies in the field of psychology as they impacted the creation of the current American Psychological Association Guidelines for Ethical Behavior. Additionally, historical studies will be discussed in the context of the time during which particular research was done. The course will also incorporate contemporary research and findings with specific regard to the ethical implication of making such findings public via popular media. This course does not fulfill the core requirement for a seminar. This course is "capped" at 8 students; underclassmen will have preference in the case of over-enrollment. 3 credit hours.

Prerequisites: *none*

3 (Undergraduate/Graduate) Credits

Course Objectives

In this course, students will:

*Learn to Think Critically About Professional Topics*

As the title of the course indicates, the primary goal of the course is that the student learns to think critically about psychological research and the ethical considerations inherent to doing research. Unlike many courses, there are no correct answers in this course, much as there are few known truths in the field of psychology. The ability to think – and to trust one's own thinking process – is a crucial factor when assessing ethical conduct and the application of one's own ethos.

*Present Thoughts Effectively Orally and in Written Format*

Equally important as the process of thinking critically is the ability to state one's thoughts in a way that can be understood by others – both verbally and in writing. Students will learn to "proofread" their own thoughts and words before speaking and or writing. In this course, spelling, grammar, construction, and content will count equally.

*Begin to Understand and Apply Concepts Relevant to the History of Ethics*

While it is easy to presume that the APA has done all of the thinking for psychologists, it is unrealistic to simply follow the rules as we study human behavior. The student will leave this course with a "gut" understanding that there are still many thoughts to consider with regard to ethics – in general and professionally

Main Topics Covered in the Course

A. Historical psychological research
B. Current American Psychological Association Guidelines for the ethical treatment of human and animal subjects.
C. Current interpretation of past and contemporary psychological research

Possible or Typical Texts

Hock, R.R. (2004). *Forty Studies That Changed Psychology: Explorations Into the History of Psychological Research (5th Edition).* NJ: Prentice Hall.

*Publication Manual of the American Psychological Association, Fifth Edition* (2001). Washington, D.C.: APA.

Shamoo, A.E. & Khin-Maung-Gyi, F.A. (2002). *Ethics of the Use of Human Subjects in Research*. NY, NY: Garland Science Publishing.

Institute of Laboratory Animal Resources Commission on Life Sciences, National Research Council (1996). *Guide for the Care and Use of Laboratory Animals* Washington, DC: National Academy Press.

*The Waterville Morning Sentinel*

Various archival video and film shorts relevant to the history of psychological research. (e.g., Pavlov's Research Laboratory footage.)

Instructor

The course will be taught by *Colleen J. Burnham*.

(List academic credentials and special qualifications to teach the course.)

See resume on file.

20 years of experience in Human and Animal Subject "handling" in the field of academic research psychology.

Rationale for This Course

How does the professional scientist come to understand his own professional system of ethics as a person and as a scientist? This course will expose the undergraduate to the process of applying a personal and professional ethos to research as it relates to and is interpreted by society as well as within the professional realm. The student will become familiar with classic historic psychological research, current "popular" scientific discovery, and his or her own personal perspective of the validity and methodology of both. Additionally the student will learn that it is possible to contribute thoughtfully to the ongoing professional discussions regarding scientific ethics.

Support

Because this course will be primarily discussion-based, library and media services will be required minimally. There may be an occasional need for a VCR and or projector. Copies of the texts required for the course will be placed on reserve in the library by the instructor.

**PS2xx Ethics in Science: An Introduction to Applied Critical Thinking**
Class Time: Tuesday and Thursday: 10:00 – 11:15

Instructor: Colleen J. Burnham; *burnhamc@thomas.edu*
Office Hours: open and by appointment

This course is a seminar style class for the discussion of practical and professional ethics and responsibilities for the undergraduate scientist; it will consist of the examination of classic studies in the field of psychology as they impacted the creation of the current American Psychological Association Guidelines for Ethical Behavior. Additionally, historical studies will be discussed in the context of the time during which particular research was done. The course will also incorporate contemporary research and findings with specific regard to the ethical implication of making such findings public via popular media. This course does not fulfill the core requirement for a seminar. This course is "capped" at 8 students; underclassmen will have preference in the case of over-enrollment. 3 credit hours.

**Texts**:

Hock, R.R. (2004). *Forty Studies That Changed Psychology: Explorations into the History of Psychological Research (5th Edition).* NJ: Prentice Hall.

*Publication Manual of the American Psychological Association, Fifth Edition* (2001). Washington, D.C.: APA.

Shamoo, A.E. & Khin-Maung-Gyi, F.A. (2002). *Ethics of the Use of Human Subjects in Research*. NY, NY: Garland Science Publishing.

Institute of Laboratory Animal Resources Commission on Life Sciences, National Research Council (1996). *Guide for the Care and Use of Laboratory Animals* Washington, DC: National Academy Press.

**Grading**:

| | | |
|---|---|---|
| • *Class Participation & Attendance* | 40% | (2 pts per class meeting) |
| • *Discussion Leadership* | 15% | (15 pts: 5 for prep; 5 for questions; 5 for leadership) |
| • *Annotated Literature Review* | 15% | (15 pts.) |
| • *Opinion Papers – 4 (or Journal)* | 15% | (3.75 pts per paper; 1.25 pts per journal entry) |
| • *Final Exam* | 15% | (15 pts) |

*Class Participation & Attendance*

Participation is defined for the purpose of this course as verbally contributing to class discussion and content, active listening, and daily reading of the *Waterville Morning* Sentinel. *The Sentinel* can be purchased in the Bookstore, or found in the reference section of the library.

Attendance at every class meeting is to be considered mandatory due to the discussion design of the course. Everyone is expected to contribute even if only by virtue of his or her presence. Excused absences may be negotiated with the instructor.

*Discussion Leadership*

Each student will be assigned a classic study from the text for which he or she will prepare 5 discussion questions. The student will also be prepared to lead the class in discussion with examples of various ethical interpretations of the particular study based on current APA guidelines as well as within the context of the era during which the study was conducted. (See the attached *tentative* schedule of discussion topics.)

*Annotated Literature Review*

The student will turn in an annotated bibliography on any topic in the context of practical or professional ethics of the psychologist, chosen by the student, and approved by the instructor. The bibliography will include a minimum of 20 references with comments as to topic relevancy.

*Opinion Papers (4) or Weekly Journal Entries (12)*

This is your opportunity to write "I feel" essays! All opinions must be supported by the literature generally, but may, for example, be based in apparently absurd intuition if it seems right to write the thoughts. Papers will be 1-2 pages in length, and will not require a reference section or bibliography (unless, of course, the student determines it necessary to make the point). Citations may be made "loosely" by referring to a particular theorist rather than formally citing and referencing a specific study. For example, it will be acceptable to write the following as a beginning thought for a student's "opinion": 'According to Skinner, positive reinforcement is the basis for all manifest behavior.' The four Opinion Papers may be evenly spaced across the semester, or turned in at the end of the semester as one packet. One Opinion Paper is equal to 3 Journal Entries.

Weekly Journal Entries may be done in lieu of opinion papers. These may be word-processed (and handed in) or emailed to the instructor by Friday of each week. Journal writing will be specific thoughts, questions, comments, etc. regarding class discussions. An example of a journal entry may be that of a comment about animal sacrifice that the writer might not have felt comfortable discussing with the other members of the class.

*Final Exam*

The final exam will consist of 4 ethical dilemmas which have been identified via the class discussions throughout the semester. The format will be essay, graded on (1) the pragmatic application of professional ethic, and (2) the ability of the writer to convey his or her logical thought process. It is expected that by the end of the semester, students will be able to recognize and react appropriately to examples of ethical dilemmas.

**Course Objectives**

*Thinking Critically*

As the title of the course indicates, the primary goal of the course is that the student learns to think critically about psychological research and the ethical considerations inherent to doing research. Unlike many courses that you will take, there are no correct answers in this course, much as there are few known truths in the field of psychology. The ability to think – and to trust one's own thinking process – is a crucial factor when assessing ethical conduct and the application of one's own ethos.

*Presentation*

Equally important as the process of thinking critically is the ability to state one's thoughts in a way that can be understood by others – both verbally and in writing. Students will learn to "proofread" their own thoughts and words before speaking and or writing. In this course, spelling, grammar, construction, and content will count equally.

*History of Ethics*

While it is easy to presume that the APA has done all of the thinking for psychologists, it is unrealistic to simply follow the rules as we study human behavior. The student will leave this course with a "gut" understanding that there are still many thoughts to consider with regard to ethics – in general and professionally.

**Tentative Discussion Topic List**

| | |
|---|---|
| Week 1 | Getting to know each other; general conversation about ethics v morals; assignment of student-led discussion topics. |
| Week 2 | Chapter 8: Psychopathology<br>• Who's Crazy Here, Anyway?<br>• Projections of Who You Are |
| Week 3 | Chapter 10: Social Psychology<br>• The Power of Conformity<br>• Obey at Any Cost |
| Week 4 | Chapter 6: Emotion and Motivation<br>• Life, Change, and Stress<br>• Thoughts out of Tune |
| Week 5 | Chapter 1: Biology and Human Behavior<br>• One Brain or Two?<br>• What You See is What You've Learned |
| Week 6 | Chapter 5: Human Development<br>• Born First, Born Smarter?<br>• Out of Sight, But Not Out of Mind. |
| Week 7 | Chapter 4: Intelligence, Cognition, and Memory<br>• What You Expect is What You Get!<br>• Making a Good Impression |
| Week 8 | Chapter 3: Learning and Conditioning<br>• It's Not Just About Salivating Dogs!<br>• Little Emotional Albert |
| Week 9:<br>*Begin Student-led Discussions.* | Chapter 7: Personality<br>• How Moral are You?<br>Chapter 6: Emotion and Motivation<br>• I Can See it All Over Your Face! |
| Week 10 | Chapter 3: Learning and Conditioning<br>• Knock Wood!<br>Chapter 2: Consciousness<br>• When You Wish Upon a Dream |
| Week 11 | Chapter 8: Psychopathology |

| | |
|---|---|
| | • You're Getting Defensive Again!<br>Chapter 3: Learning and Conditioning<br>• See Aggression, Do Aggression |
| Week 12 | Chapter 1: Biology and Human Behavior<br>• Watch Out For the Visual Cliff!<br>Chapter 9: Psychotherapy<br>• Relaxing Your Fears Away |
| Week 13 | Course Wrap-Up<br>Opinion Papers DUE<br>Literature Reviews DUE<br>Final Exam |

*For information regarding policies for Religious Holidays, Academic Honesty, and Handicap Accessibility, please refer to the Student Handbook.*

**LESSON PLAN**

**PS2xx: Ethics in Science: An Introduction to Applied Critical Thinking**

*Grade Level:* College Sophomore or equivalent

*Content of Lesson:* Week 2:

Discussion: Ethical Considerations in Psychopathology (readings which had been assigned at the previous class meeting)

*Topic & skill being learned:*

At this point in the semester, the student is still learning to trust his or her own thinking as we discuss historical research in the field of psychology as a class. While there are obvious ethical issues presented in the particular article for discussion, it is more valuable that the student becomes comfortable discussing those issues.

*Essential Academic Learning Requirement being addressed:*

Thinking and discussing a potentially difficult subject safely

*Objectives*:

The primary objective for this class meeting is that the student becomes used to and comfortable with the discussion format. Begin the process of thinking about ethical behavior and opinion in the context of Science.

*How assessment and evaluation occur:*

Assessment of the class meeting will be subjective measure of the quality and amount of participation. Each student will be expected to contribute something, even if only nodding in agreement. The assessment will become more stringent as the semester progresses.

*Materials needed to Accomplish Lesson Plan:*

The required textbooks

Small white board

Comfortable classroom

**ACTUAL LESSON GUIDE**

*Estimated Teacher Activities*

Discussion facilitator, mentor, time-keeper

*Learner Activities*

Discussion

Time: 1 hour, and 15 minutes

**Sequencing of Instructional Activities**

I. Reintroduce each other and general topic

II. Remind class of the "rules of engagement"

   a. Courtesy

   b. Clarity

   c. Staying on Topic

III. Talk briefly about the two studies which will be discussed

   a. Who's Crazy Here, Anyway?

      i. Author & date of study and article

         1. Rosenthal D.L.(1973) On being sane in insane places. *Science*, 179, 250-58.

      ii. The subjects

b. Projections of Who You Are

i. Author & dates of study and article

1. Rorschach, H. (1942). *Psychodiagnostics: A diagnostic test based on perception.* NY: Grune and Stratton.

c. State time limits

i. 25 minutes for each article (state actual time)

ii. Remaining 15-20 minutes for wrap-up

IV. Begin discussion: Who's Crazy Here, Anyway?

a. Talk about the "definition" of crazy

b. APA guidelines for "crazy"

c. "Do you know anyone whom you suspect is crazy?

d. Let discussion flow…

i. Facilitate when necessary

ii. Check article details when necessary

(check clock to plan time for second discussion and wrap-up; state the time)

V. Begin discussion: Projections of Who You Are

a. "How do you think others see you?"

b. "Why is this article listed under 'Psychopathology'?"

c. Let discussion flow…

i. Facilitate when necessary

ii. Check article details when necessary

(check clock to plan time for wrap-up)

VI. Wrap-Up

a. “How do you think we did today?”

b. “Did we solve any universal questions?”

c. Reminder of which articles have to be read before the next class meeting.

    i. Ch. 10 Social Psychology

        1. The Power of Conformity, page 279

        2. Obey at any Cost, page 301

d. Comments? Questions? ….?

**PS2xx Ethics in Science: An Introduction to Applied Critical Thinking**

**Sample Final Exam ~ Summer 2005**

Please write no more than 3 paragraphs explaining your thoughts on the following "ethical dilemmas", which have been drawn from our class-time discussions. There are no right answers, per se, although you should be logical in your assessment of the "problems" that you identify. Feel free to cite from class discussions, theoretical points of view, or to propose hypothetical resolutions. You may opine, but you must be sensical!

Each essay is worth 3.75 points; the exam counts for 15% (15 points) of your course grade.

1. You have been asked by your advisor to collect some demographic information about the third graders at Albert S. Hall School. She's decided that because you're going to be down there visiting your sister's class on Thursday anyway, it will be easy for you to just ask the kids where they live and how many parents live in their respective households. You know this is not quite appropriate, but you're not sure if you should suggest to your advisor that this is technically research, and so requires IRB approval before you collect any data. *Your thoughts…?*

2. You discover quite accidentally that your room-mate has accomplished a 37% mortality rate in his animal lab while he was collecting data. When you ask him about it, he says, "Oh yeah! We expected that!", but you happened to be one of his proofreaders for his IACUC protocol proposal, and you remember explicitly that he did not mention that expectation in his proposal. *What are you going to do with this new information?*

3. The *Morning Sentinel* published an article talking about the new "blinding effects" of Viagra. Since the article has come out, you've noticed that women are cracking jokes all over the place, and also that men are admitting to a real fear of taking the medication. You've read *tons* of lit on the topic in Introduction to Psychology, and you're convinced that there is no need to worry. You also have a principled objection to the sexism implied by the women and their joking. *What behavior do you manifest?*

4. As a requirement of another course, you must participate in at least one student-developed research study [as a subject] in your own psychology department. You have learned that the credit you will receive is really a "break-even" sort of credit, that is, you will be penalized if you don't participate, but you won't really receive any "credit" toward your final course grade. Because your cat was sick during the semester, your second exam score for that class is really low, so if you don't participate, that penalty will actually bring your course grade down from a B- to a C+. You already know that "a sick cat is no excuse!". *How do you rationalize what you know you must do?*

**Sample Criteria for Final Exam Answers**

1. Third Graders' Demographics at the Elementary School

    - It may be that you think this is a perfectly reasonable and ethical request knowing that you grew up in Waterville, you've baby-sat most of the kids anyway, and could provide your advisor with the information without asking each of the third graders.
    - A possible essay may center around the lack of parental consent combined with the apparent authority figure (you) asking questions of 8 year olds. In this case the essay should include a meeting with the advisor toward expressing your discomfort with the request.
    - *An inappropriate response* would be to assume ignorance of any problem, and or to collect the information just because your advisor asked you to do so.

2. 37% Mortality Rate

    - It may be that you decide to talk with your own advisor about how to develop an effective protocol, filing the discovery as a personal learning experience.
    - It may be that you think the room-mate should be reprimanded for apparently deliberately leaving out the predicted outcome of his study. This opinion would have to be supported by an imagined scenario that showed intent on the room-mate's part.
    - *An inappropriate response* might be based in turning in the room-mate to make yourself look good, or simply because "the rules" have been broken.

3. Viagra Blindness

    - A possible stance may be to develop a research project that you could do as an undergraduate student toward producing an information packet.
    - It may be that your principled objection to sexism would cause you to get into some of the joking conversations with the intent to defuse the other women. This behavior would have to be supported with examples of "compassionate intervention", as compared to simply "soap-boxing".
    - *An inappropriate response* would include back-talk, or lecturing to either audience.

4. To Participate or To Take The Grade

    - Almost any rationalization toward almost any behavior is acceptable for this dilemma: take the penalty and accept that you could have worked harder on the exams; argue the penalty with the department chair to make the point that it is actually coercive; show up for the study, but opt out on principled objections. Any behavior written about has to have been followed up with clear reasoning behind the behavior.
    - *An inappropriate response* might be to turn in the course instructor to the dean, or bad-mouthing the department for its lack of an ability to generalize.

Adult Learning: Examining Pedagogy, Androgogy, and Heutagogy

As the practice of offering on-line courses has become more frequent in colleges and secondary institutions worldwide, it seems it may again be time to re-examine the general ideology of teaching. While most instructors can recognize the inherent differences of on-line education as it compares directly to the face-to-face classroom at a "gut" level, many are not aware of the actual limitations and implications of those differences when it comes to the process of developing effective tools, assignments, and communication across the two "platforms". This paper is an attempt to address only those modifications related to student age that instructors must be cognizant of as courses and course outlines are created for both on-line and face-to-face instruction. This paper will explore simple changes in technique that often – but not always – occur "naturally" as an instructor becomes aware of the make-up of particular groups of students, specifically comparing the traditional (18-25 years old) to the non-traditional (> 25 years old) student. Many of the changes mentioned in this paper are easily "re-modified" as student-age increases, but will not be specifically expanded upon here.

That student age impacts learning is not a new concept. John Dewey was the first to recognize and attempt to draw paradigms from several developmental levels or stages based on age-of-student with regard to defining the ideology of education (1916). Most who are educated to be educators are very familiar with Dewey's advocacy of learner-centered (i.e., experience based) teaching; however, just as Mr. Dewey predicted in his lecture *The Source of a Science of Education* (1929), the educators of educators have not gracefully or effectively incorporated a paradigm of mentoring the learner rather than simply allowing the learner to write his own curriculum *per se* (1931).

Piaget is also a familiar historical contributor to the creation of educational paradigms (Coughlin, 2004). Piaget serendipitously built on Dewey's concept of the development of learning skills and levels when he identified the necessity of the awareness of defined periods of development which culminate in what he referred to as the formal operational period (Sutherland, 1999). Piaget believed that the formal operational period of development occurred at 11-12 years of age (the onset of adolescence), and that it is at the point of adolescence that the human student is able to apply the process of abstract thinking to his learning. Dewey agreed with Piaget as far as there being a developmental process which ends with the ability of abstract thought. However, Dewey did not accept that formal operational thought occurred as early as adolescence; rather that the human is not biologically or experientially predisposed to think in the abstract until he is at least 25 years old (1938).

While it was Knowles who actually coined the term "andragogy" as recently as 1992 (Gibbons & Wentworth, 2001), it was Dewey who initially made a distinction between pedagogy and androgogy (without the benefit of a label) in order to discuss the developmental stages that he believed were inherent to the development of a pragmatic ideology of education (1916). Dewey defined pedagogy as the teaching of *children*. Pedagogical techniques (according to Dewey) should incorporate strategies including, but not limited to: giving information to students, rote practice for the retention of information, building on previous lessons, and testing for retention. One the other hand, Dewey believed in the existence of a developmental stage which has come to be referred to as androgogy, or the teaching of *adults*; this approach should specifically incorporate previous student-experience, giving new information, discussion of previous experience as it relates to new information, and the application of old experience to

novel situations. While the differences are subtle, Dewey believed them to be significant with regard to teaching adults (Conner, 1995; Davis & Hase, 2001).

Carl Rogers and B.F. Skinner were also accidental contributors to the development of the paradigm of learner-centered education. Rogers as a pioneer in client-centered therapy added strength to the belief that all education should be individualized. Rogers advocated that only the client (patient) could know what was bothering him, and following through with that premise, the client is also the only one who is competent to "fix" his own apparent dysfunction. Rogers asserted that the therapist is simply a facilitator in the therapy session, encouraging the client to listen to himself, while also offering subtle hints to other ways of thinking about a particular situation. It is beyond the scope of this paper to offer an example of a Rogerian Therapy Session. The point to be made is that the field of education used Rogers' theory to effectively formalize the role of the teacher as a *facilitator*, rather than the person who stands in front of a classroom imposing information on the student.

Skinner is the father of Program Learning among many other learning concepts and theories, and is slightly less well-known in education. Skinner's Program Learning is a process of instruction which moves at the pace of the individual student. Skinner, as did Rogers and Dewey, worked with the premise that each student is an individual, is a *particular* individual based on past experience, and should be recognized as such in the venue of learning. Indeed, Skinner believed that each student is an individual precisely because every moment is a learning experience, and every person's collection of moments is different than any other's. Dewey also believed that every moment is an educational experience: *"Education is life itself!"*. Skinner overtly contributed to the paradigm of learner-directed education when he introduced Program

Learning as a formal curriculum, forcing the teacher into the role of facilitator by virtue of the need for the student to work independently.

Implied in the work of both Rogers and Skinner is the concept of development. If the person or student is a function of his own personal past experiences, he is also developing at his own pace as his world presents him with an increasing number of increasingly novel experiences from which to learn. It is reasonable to infer from both of these scientists that human development is a cumulative cognitive process which only gets better with age, that is to say, that the older the student is, the more experiences he has to draw upon as he learns new information. By virtue of their applied methodologies which were essentially androgogical in nature, both were advocates of heutogogy with regard to an educational ideology – without ever actually using the term.

An easy working definition of the heutogogical methodology is that it is one in which the teacher must always be acutely aware of his audience (Coughlin, 2004). The heutogogical (person-centered) approach essentially requires that the teacher has a baseline for each student, while being aware of the developmental level at which the particular student is functioning; it is a premise which focuses on the value of past student-experience (Davis & Hase, 2001). Currently, heutogogy is considered a third teaching methodology, in addition to pedagogy and androgogy; this trichotomy has accidentally imposed itself into the process of educating teachers (Hase & Ellis, 2001). Ironically, Dewey predicted the misinterpretation of these concepts in his lecture *TheWay Out of Educational Confusion* (1931).

Dewey suspected that the college instructors were mired in their own tradition of pedagogy, even while making a conscious effort to encourage an awareness in their students of both experience-based and repetitive learning. Dewey was aware of the ultimate negative loop in

which educators had found themselves; that is, he recognized that educators, too, are victims of their own experience. With an omen-like "Skinnerian Eye", Dewey predicted that educators would continue to teach in the same way that they were taught, never quite able to grasp the subtleties he had hoped would become a new ideology of education, simply by virtue of their own success in education. Indeed, until the 1970s, education instructors referred to their own pedagogy as either androgogical or heutogogical – a completely nonsensical concept as Dewey had delineated the differences.

In the late 1970s, a new school called neo-piagetian theory emerged. The neo-piatetian scholars and philosophers reexamined Piaget, Dewey, Rogers, Skinner, as well as many others who had participated in the skewing of the definitions of pedagogy, androgogy, and heutogogy. The bulk of the new work has been done in the United Kingdom as those countries attempt to reevaluate and potentially recreate their own educational systems. Ironically, while this new school has come to write prolifically about American philosophers, psychologists, and educators, they have not become very well known in the American field of education, either at the post-secondary level of instruction or to practicing educators (Knight & Sutton, 2004). These new scholars, having revisited and empirically tested Piaget et al., write primarily to themselves; they have not quite made it into the American Educational peer-reviewed journals, and are typically considered philosophers rather than educators.

According to the neo-piagetian school, there is in fact a relatively solid line of developmental ability and intention to be drawn between the traditional, less than 25 year old student, and the adult student (>25 years old); the evidence is typically qualitative and anecdotal, but it does exist. In an attempt to discover better techniques for teaching "marginalized" (laid off) workers, Illeris (2003) noticed that while socioeconomic status, gender,

and educational background impacted student learning significantly, a most striking comparison could be made when age was considered. Students under the age of 25 years (the equivelant of the traditional American college student) were generally open to learning anything with regard to topic; while the older students (>25 years old) demanded topic-relevancy from instructors and each other. The younger students were not committed to a particular lifestyle or career, and from that lack of commitment, typically signed up for any topic, and dropped anything that didn't seem interesting – or required. Older students seemed entrenched in their personal worlds and identities, and chose curricula accordingly. And finally (for the purposes of this paper), the younger students seemed not to mind the format of the teacher-directed classroom, as compared to the older students' apparent inability to "re-learn" in the traditional classroom, except in the case when a relationship could be cultivated with the instructor which serendipitously caused the classroom teacher to switch to a more learner-centered format by drawing on an older student's experience for examples. Illeris additionally identified the odd behavior of infantilization in adult students; older students who were taught pedagogically tended to behave as children, tossing spitballs, talking in class, etc. Younger students in the same classroom behaved "appropriately", answering questions when called upon, turning in assignments on time, and sitting still for about an hour. It has been hypothesized that this behavior difference indicates the dichotomy of pedagogy and androgogy, as was described originally by Dewey.

Mr. Dewey would find the previous studies interesting but not surprising. Dewey's attempt to define the two teaching methods incorporated just this sort of "unexpected" behavior. As educators who have been educated in a pedagogical system, it seems natural for educators to expect that older students have already learned how to behave in the classroom. It is reasonable to suspect that Dewey (and Skinner) would argue that the childish behavior is context specific

combined with the increased ability to think abstractly; that is to say, because the adults are *able* to use their own brains *per se*, and not *allowed* to use their own brains in the traditional pedagogical classroom, they predictably revert to the behavior that they believe is appropriate to the classroom. It is also reasonable to suspect that Dewey and Skinner would suggest that by looking at the classroom with a heutogogical eye in advance of planning the daily lesson, the teacher would identify the varied levels of development. By recognizing developmental differences, the teacher would be able to incorporate both the traditional techniques for teaching children (pedagogy) and those experience-based techniques for teaching adults (androgogy).

Inferred from the work by Dewey, Skinner, and other current investigators is the expectation that by virtue of alternating between pedagogical and androgogical techniques, the younger student will learn how to learn experientially simply by watching the older students use the process that seems to come naturally to the adult. Conversely, the adult will overlook the occasional requirement of rote-learning as a concession to the function of a particular curriculum. Today, most educators might state their pedagogy as one of androgogy or heutogogy; or that their pedagogy is one that is either teacher- or learner-directed. If Dewey and Skinner had had the particular terminology available, they would rather it be phrased in a way states that a teacher's heutogogical (person-centered) methodology allows for the incorporation of pedagogical (teacher-directed) techniques, as well as androgogical (learner-centered or directed) methods; that is, that the teacher as an acute observer of his audience must be able to incorporate both teacher- and learner-directed philosophies in the classroom. Put simply, while it's appropriate to stand in front of the classroom and feed information to the younger student, it is critical to allow the older student to participate in his own learning experience. The "old masters" exemplified by Dewey knew this about this developmental line; they had watched and

allowed themselves, as adults, to process their observations toward reformulating an old system of education. The “new guys” are rediscovering the phenomenon as more adults enter the classroom; they are simultaneously and deliberately watching for differences that are predictable, and they are (following Dewey’s lead) “checking-in” with all fields in which the study of human behavior is relevant.

How does all of this relate to the original intent of this paper to reexamine the general ideology of teaching and education? As is evidenced in all of the literature on this topic, the classroom of today is changing even as data is collected: the traditional college student is fast becoming outnumbered by non-traditional students; and the addition of the virtual classroom in the majority of formal educational systems has resulted in a highly diverse collection of students (not only with respect to age). The college instructor must begin to assume a heutogogical approach to his classroom whether it is a virtual or a face-to-face situation, by becoming acutely aware of the line of developmental differences that is increasingly more apparent as is being reported in anecdotal and empirical studies done in fields such as education, cognitive psychology, neuropsychology, and biology (Brown, 1998). A heutogogical approach, as intended by Dewey, demands that the instructor address the learners as individuals while recognizing predictable stages of development, accepting that the younger student is not capable of learning only androgogically (experientially), while admitting that the older student cannot not be forced through a pedagogical curriculum, and indeed requires the opportunity to learn from his own experience; this paradigm is particularly important as one designs curricula for the online college venue.

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# Appendix A

Coughlin Article not currently retrievable electronically

# Appendix B

## Course and Topic Commentary

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June 2005