

RESEARCH DESIGN & STATISTICS I

TURBO Edition (8-week) ALL ONLINE

Wed Jan 20th to Fri Mar 12th

PSYC 220 sections 002 & 003 — Spring 2021 — 3 credit hours

Class times and format:

- **Asynchronous lectures** (not live) will be posted by 10am on:
 - Mondays
 - Wednesdays
 - **Synchronous labs** (*live, be there for the section in which you're enrolled*) will be on:
 - Section 002: Fridays 8am-10am
 - Section 003: Fridays 10am-12pm
 - **Office hours:** come on in and get help, and/or chat! (also by appointment)
 - Mon: 1-2:30pm w/ Madison, 5-6:30pm w/ Claire
 - Tues: 2-3:30pm w/ Dr. Finley
 - Wed: 12-1:30pm w/ Dr. Finley, 5-6:30pm w/ Tariq
 - Thurs: 5-6:30pm w/ Claire
 - Fri: 1-2:30pm w/ Madison, 5-6:30pm w/ Tariq
 - **Last day to drop:** Jan 29th **Last day to withdraw:** Feb 12th
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Your instructors:

- **Dr. Jason Finley**, professor
 - *email:* jafinle@siue.edu
 - *phone:* 949-433-4216
 - *office:* 130 Alumni Hall [not that it matters anyway during the pandemic]
 - *office hours:* Tues 1-2pm, Wed 1:30-3:30pm
 - **Claire Greenlee**, Graduate Teaching Assistant
 - *email:* cgreenl@siue.edu
 - *office hours:* Mon 5-6:30pm, Thurs 5-6:30pm
 - **Tariq Minor**, Graduate Teaching Assistant
 - *email:* tminor@siue.edu
 - *office hours:* Wed 5-6:30pm, Fri 5-6:30pm
 - **Madison Gardner**, Graduate Teaching Assistant
 - *email:* magardn@siue.edu
 - *office hours:* Mon 1-2:30pm, Fri 1-2:30pm
 - **Christine Seitz**, Graduate Tutor: chseitz@siue.edu
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Required course texts: (get these ASAP!)

Gravetter, F. J. & Forzano, L. B. (2018). *Research methods for the behavioral sciences* (6th ed.). Belmont, CA: Cengage.

Gravetter, F. J., Wallnau, L. B., Forzano, L. B., & Witnauer, J. E. (2018). *Essentials of statistics for the behavioral sciences* (10th ed.). Cengage.

Tech we will be using:

- **Blackboard:** <https://bb.siue.edu>
 - Asynchronous lectures, assignments, and handout stuff will be posted here.
- **Microsoft Teams:** via link on Blackboard, can be used in web browser or by downloading app onto computer and/or phone. *We highly recommend downloading the MS Teams app to your computer, as that has fewer glitches.* Get it from the Office link below.
 - We'll use MS Teams for communication, lab meetings, and office hours. **When you have questions, post them here.** MS Teams will also be useful for group project work.
- **SPSS:** download and install (*don't try to use the web version!*)
<https://www.siue.edu/its/labsclassrooms/vlab/spss.shtml>
INSTALL SPSS RIGHT AWAY. DO NOT WAIT.
- **Microsoft Office:** I highly recommend downloading and installing, (*don't try to use the web version! noticing a pattern?*). <https://www.siue.edu/its/office365/install.shtml>
- **Qualtrics:** for survey data gathering <https://siue.qualtrics.com/>

Tech Requirements and Support:

Since this is an online course, you are expected to have:

- (1) A reliably working computer that runs Windows or Mac OS. Tablets and smart phones might work for some things in this course, but we can't guarantee they will work for everything. Chromebook laptops are also problematic, especially for using SPSS. If you do not have a working computer that runs Windows or Mac OS, contact Information Technology Services about borrowing a laptop from the university. There are also computers for student use in the Library.
- (2) Reliable internet access on a regular basis. If this is a problem for you, one option would be to visit the Library to use the wifi there.

Contact ITS at [618-650-5500](tel:618-650-5500) or at help@siue.edu with any technical concerns. You can also check the functionality of University systems, including Blackboard, at the [ITS System Status page](#), or search the [ITS Knowledge Base](#) for various how-to and troubleshooting guides.

My Teaching Philosophy

My goal is to spark a sense of wonder in students, and to equip them with the skills to think better and become better people.

How to communicate with me?

If you have questions, the best way to get in touch with me is MS Teams. Email is also an option, but I get a deluge of those everyday so I'm more likely to miss an email. I will do my best to respond within 24 hours. Please address me as Dr. Finley, Professor Finley, or Prof. Finley.

Course Catalog Description: Methods for designing psychological studies and the statistics used to analyze and interpret the data. Focus on non-experimental methods.

Prerequisite(s): PSYC 111 Minimum Grade of C, and psychology major

Course Description:

Psychology is the science of mind and behavior, and science is a way of knowing. This course (combined with PSYC221) provides an introduction to the research methods and statistics that behavioral scientists most commonly use in their efforts to understand the human condition. PSYC220 focuses on non-experimental research designs and descriptive statistics. PSYC221 focuses on experimental research designs and inferential statistics.

By the end of the semester, you will learn how to: read, understand, and critically evaluate published research; generate empirically testable hypotheses; design a research study and collect data; select and calculate appropriate statistics (e.g., using SPSS); understand the major concepts of statistics; analyze and interpret data; effectively communicate research results to your peers; and write a research paper in APA style. In short, you will learn how to do science! You'll also be able to think critically about research you read.

What about the statistics part?? Statistics is a way to make meaning out of numbers. Doesn't that sound awesome? It is; you'll see. My goal is to help you understand the major concepts of statistics. I focus on concepts over calculation. We do use some math in statistics, but you will only need basic math skills (high school algebra), and I am happy to help you refresh any skills as needed (see also Appendix A in the textbook). Many students feel anxiety about math. Don't panic; it will be okay. You won't have to memorize formulas or do mental arithmetic. If you put in the time and effort and take advantage of tutoring from the graduate teaching assistants and me, you can definitely do this.

Course Objectives:

The learning activities, assignments, and exams in this course assess your mastery of these learning outcomes:

- **Critical and Creative Thinking**

You will learn how to think like a scientist about mind and behavior, how to transform your curiosity into testable questions, and how to critically evaluate evidence. My

approach to doing research is this: unbounded creative curiosity first. Then rigor. Finally practicality.

- **Research Skills**

You will learn the basic techniques of the whole research process, including: searching and reading published scientific literature, developing research ideas, the variety of methods available (descriptive/observational, correlational, experimental), how to run a good experiment, gathering data, analyzing data with statistics, and communicating results to colleagues.

- **Statistics Skills**

You will learn the role of statistics in psychological science, the major concepts of descriptive and inferential statistics, which statistics are used in which scenarios, and how to conduct, interpret, and report statistics (in part by using SPSS).

- **Writing Skills**

You will improve your writing skills, and learn to write a paper using APA (American Psychological Association) style.

Note that my job is to *help* you learn, not *force* you to learn. Learning requires time and effort. I am here to help you, but you need to take responsibility for your own learning and meet me partway.

SPECIAL NOTES ABOUT 220/221

- You should be registered for at least 15 credit hours this semester if it is important that you remain a full-time student. Why? In the unfortunate event that you fail this course, you will drop PSYC 221, which will reduce your credit hours. Thus, you must have 15 hours in order to be able to drop PSYC 221 and still remain at full-time status (12 hours).
- This course has a “2 attempt” rule—you may only attempt the course (including W, WF, WP) two times. After two unsuccessful attempts, you will be dropped from the major.
- **A grade of C or better is required to progress to PSYC221.** *If you earn a course grade of D or F in PSYC220, contact your advisor immediately* to determine whether there is any possibility of getting enrolled in a section of this course next semester.

Online Class Etiquette/Logistics:

- Take notes. Whether it’s asynch lecture videos, synch lab sessions, or reading the book, you’ll want to be taking notes. On paper or on computer? Both have their advantages; use whatever works best for you.
- You’re going to do best if you use a computer rather than phone or tablet.
- Please have your video camera on for synchronous sessions. It really helps us connect with you. And you can use fun backgrounds! Microphones will be muted by default, but you can unmute anytime to speak.
 - If video is not feasible for you, you MUST at least upload a photo of yourself to your account on MS Teams.

- A headset with microphone will be helpful, but not required.
- If possible, set up a wired connection (ethernet) to your computer, as this will give you a more reliable internet connection than wireless.
- WEAR CLOTHES. GET OUT OF BED.
- Don't have anything opened on your computer that you wouldn't want others to see.
- Please be mentally present and *minimize distraction*. I will strive to not be boring.
- No antimatter allowed, on or off campus; trust me on this.
- **Ask questions!** Seriously! Speak up whenever you have questions, don't understand something, have answers, have ideas, etc. Asking questions is a sign of WISDOM, and it's also a great way to learn.
- Recordings of class: instructional material created by the professor is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International license (CC BY-NC-SA 4.0). Meaning that you can share and adapt the material as long as you give credit and it is for non-commercial purposes. Content created by third parties (e.g., movies, textbooks) is covered by its own copyright licenses.

Overview of what you need to do for this course:

- Do the CITI Research Ethics and Compliance Training.
 - Watch the Monday and Wednesday asynchronous lectures and do the respective worksheets by 11:59pm.
 - Do the assigned readings from the textbook.
 - Attend the synchronous lab sessions on Fridays during your assigned section, and do the worksheets by 11:59pm.
 - Do the weekly comprehension check by Sunday 11:59pm at the end of each week.
 - Work with your group to create and run a survey project.
 - Do project components and turn them in on time.
 - Collect and analyze data.
 - Give a final group presentation.
 - Write a final individual paper and turn it in on time.
 - Do the final exam.
 - **Ask your instructors for help whenever you don't understand something. Go to office hours. Be in touch if stuff is going on in your life.**
 - **KEEP UP. This is a CONDENSED class so it moves FAST. It's 16 weeks crammed down into 8 weeks. DON'T PROCRASTINATE.**
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Evaluation: Your grade in this course will be based on:

Pre-Course Questionnaire	10
CITI Research Ethics and Compliance Training	10
Asynch Lecture Worksheets 14 worth 16 points each	224
Synch Lab Worksheets 7 worth 24 points each	168
ATTENDANCE of Labs 6 worth 8 points each (1 free absence)	48
Weekly Comprehension Checks 7 worth 24 points each	168
Group Research Project Proposal v. 1: 20 Proposal v. 2: 20 Draft 1 (intro): 20 Draft 2 (+method): 20 Draft 3 (+results): 20 Draft 4 (final paper): 26 Final Group Presentation: 26 Peer evaluation: 20	172
Final exam	200
Total:	1000

Final letter grades will be based strictly on the following scale:

895	≤	A	≤	1000
795	≤	B	<	895
695	≤	C	<	795
595	≤	D	<	695
0	≤	F	<	595

Note that 925 points is 92.5%, and so on. Fractional points will be handled as follows: a final score of 800.50 would be rounded up to 801, and a final score of 800.49 would be rounded down to 800.

Pre-Course Questionnaire:

A self-report questionnaire to measure any pre-existing knowledge of research methods and statistics. Full credit just for completing it. A similar post-course questionnaire will be completed at the end of PSYC221.

CITI Training: An online certification of research ethics training.

Asynchronous Lectures + worksheets:

Every Monday and Wednesday, an asynchronous lecture will be posted on Blackboard by 10am. Watch it, and do the related worksheet activities by 11:59pm.

Synchronous Labs: Attendance and worksheets

Every Friday, there will be live synchronous lab sessions (conducted via MS Teams). You must attend and complete the related worksheet activities by 11:59pm. Be sure to attend the section you are enrolled in. 002: 8am, 003: 10am. We will be taking attendance partway through each lab session. If you just show up for a few minutes and then leave, we will notice that and you won't get credit for attendance. If you have any outside work/job duties, schedule them around your synchronous classes. Remember, each of these lab sessions represents two weeks' worth of activity. You will be allowed one absence without penalty.

Weekly Comprehension Checks:

Each week there will be a comprehension check on Blackboard for the readings covered that week. The general format will be 10 multiple choice questions per chapter, drawn randomly from a question pool. The due date is Sunday 11:59pm at the end of each week. Before the deadline, you have unlimited time and an unlimited number of attempts. Each attempt will consist of another random drawing of questions. Your final score will be the highest of all your attempts for that week. You may use your books and notes for the comprehension checks, but DO NOT search the internet for answers, and do not work with anyone else.

Group Research Project:

For the group research project, you will be put into groups of ≈ 4 students. You will work with your group to design and conduct a survey study. The project will be completed in stages with due dates throughout the 8 week course as you create an APA style paper. Drafts will be submitted via Turn-It-In on Blackboard, which automatically checks for plagiarism.

Group vs. individual evaluation: As a group you will turn in one project proposal and everyone in the group will receive the same score on that. Likewise, you will do the final presentation as a group (on MS Teams) and everyone in the group will receive the same score on that. For all the other project components (literature review, method section, results section, and final paper), you will complete your own individual version and receive your own individual score.

Final Exam:

The final exam will be cumulative, with a 4 hour time limit, only one attempt allowed, and must be completed in one sitting. It will be available on Blackboard for 48 hours and due by 11:59pm on the Friday of week 8 (see schedule below).

Hypothetical extra credit:

I reserve the right to *potentially* offer bonus assignments for extra credit. Any such assignments would be *equally available to all students*.

Late Policy:

You can turn in 2 things up to 1 week late without penalty. After that, all late work will earn half credit up until the end of Friday of week 8. Nothing can be accepted after that because we have to enter grades the following Monday.

Academic Honesty:

In this course, you are NOT ALLOWED TO WRITE YOUR PAPERS TOGETHER. In addition, you must work independently on all exams. If you are involved in any case of academic dishonesty (e.g., you copy work from a classmate or other source, OR your actions allow another student to copy from you, you forge an assignment or plagiarize, etc.), you will earn an F on the assignment and the offense will be reported to the Provost's office. More than one infraction will result in an F in the class.

University and Psychology Department Policies

- **Psychology Department PSYC 220/221 policy.** This course has a “2 attempt” rule—you may only attempt the course (including W, WF, WP) two times. After two unsuccessful attempts, you will be dropped from the major. A grade of C or better is required for this course. If you earn a course grade of D or F, it is your responsibility to contact your adviser immediately to determine whether there is any possibility of getting enrolled in a section of this course next semester.
- **Psychology Department policy on plagiarism.** Plagiarism includes presenting someone else's words without quotation marks (even if you cite the source), presenting someone else's ideas without citing that source, or presenting one's own previous work as though it were new. When paraphrasing from another source or your own work, at the very least, the student should change the wording, sentence syntax, and order of ideas presented in the paper. Additionally, you should not submit a paper, or parts of a paper, written to fulfill the requirements of one class for the requirements in another class without prior approval of the current instructor and appropriate citation. Ideally, the student will integrate ideas from multiple sources while providing critical commentary on the topic in a way that clearly identifies whether words and ideas are those of the student or are from another source. Plagiarism is one type of academic misconduct described in SIUE's Student Academic Code

(<http://www.siu.edu/policies/3c2.shtml>). University policy states that “Normally a student who plagiarizes shall receive a grade of F in the course in which the act occurs. The offense shall also be reported to the Provost.” (<http://www.siu.edu/policies/1i6.shtml>). The University policy discusses additional academic sanctions including suspension and expulsion from the University. To insure that you understand how to avoid plagiarism, we encourage you to review the information on plagiarism provided on the Department of Psychology web page at <http://www.siu.edu/education/psychology/plagiarism.shtml>.

- We will cover how to properly read and cite sources in class. You are responsible for understanding what plagiarism is; if you have any questions at all, you should discuss them with the professor or your TAs BEFORE you turn in a plagiarized paper. A lack of knowledge of appropriate citation and referencing format will not excuse you from point deductions from written assignments or disciplinary action in the case of plagiarism.
- **Psychology Department policy on Incomplete Grades, Pass-No Credit Option, and Withdrawal.** It is the student’s responsibility to officially withdraw from a course through the Enrollment Office by the dates set by the university if the student is not intending to complete the course. Students who do not withdraw and have not completed the course will receive an Unauthorized Withdrawal (UW). Only under special circumstances may a faculty member agree to give the student an Incomplete (INC) grade in order to allow the student to complete the remaining work for the course no later than the end of the following semester. An INC is never automatic but must be approved by the instructor. If an instructor agrees to give a student an INC grade, the instructor and student will fill out a form (Memorandum of Incomplete Grade) indicating why an INC is being given. One copy of the completed form will be given to the student, one copy will be given to the instructor, and one copy will be kept by the Department of Psychology secretary. If the work is not completed by the specified time, the grade will be changed from INC to F.
- **Psychology Department writing policy.** As a student in this course, you will be expected to display university-level writing, which includes completing course assignments that meet the following basic writing criteria. Specifically, all written assignments completed for this course should include:
 - clear transitions from sentence to sentence and idea to idea (i.e., paper is organized/flows well);
 - verb tense consistency;
 - clear and unambiguous sentences and ideas;
 - writing that is free of typos, spelling errors, and major grammatical errors;
 - properly formatted citations and references (if relevant).

This is by no means an exhaustive list of basic writing skills, but will give you an idea of what we are looking for in our papers. If you feel you need help with your writing, you are encouraged to seek assistance from the writing center on campus (<https://www.siu.edu/lss/writing-center/index.shtml>) or utilize one of the many online resources they have identified to help students (<https://www.siu.edu/lss/writing-center/resources.shtml>). If your graded written assignments fail to meet the basic writing requirements listed above (and any others found to be appropriate by your instructor), the instructor will stop the grading process and return the paper to you with the grade of 0. You will have 48 hours to return the assignment in an acceptable form; if it still fails to meet the basic writing criteria, the grade of 0 will remain.

Services for Students Needing Accommodations

It is the policy and practice of Southern Illinois University Edwardsville to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content or the use of non-captioned videos—please contact Accessible Campus Community and Equitable Student Support (ACCESS) as soon as possible. In order to properly determine reasonable accommodations, students must register with ACCESS either online at siue.edu/access or in person in the Student Success Center, Room 1203. You can also reach the office by emailing us at myaccess@siue.edu or by calling 618-650-3726.

Diversity and Inclusion

SIUE is committed to respecting everyone's dignity at all times. In order to learn, exchange ideas, and support one another, our virtual and physical classrooms must be places where students and teachers feel safe and supported. Systems of oppression permeate our institutions and our classrooms. All students and faculty have the responsibility to co-create a classroom that affirms inclusion, equity, and social justice, where racism, sexism, classism, ableism, heterosexism, xenophobia, and other social pathologies are not tolerated. Violations of this policy will be enforced in line with the SIUE Student Conduct Code.

The Center for Student Diversity & Inclusion <https://www.siue.edu/csdi> is an excellent resource for students for support and community. Any person who believes they have experienced or witnessed discrimination or harassment can contact Ms. Jamie Ball, Director in the Office of Equal Opportunity, Access and Title IX Coordination at (618) 650-2333 or jball@siue.edu. There is also an online form for reporting bias incidents at https://cm.maxient.com/reportingform.php?SIUEdwardsville&layout_id=10.

Academic and Other Student Services

As an enrolled SIUE student, you have a variety of support available to you, including:

- [Lovejoy Library Resources](#)
- [Academic Success Sessions](#)
- [Tutoring Resource Center](#)
- [The Writing Center](#)
- [Academic Advising](#)
- [Financial Aid](#)
- [Campus Events](#)
- [Counseling Services](#)

If you find that you need additional support, please reach out to me and let me know.

Cougar Care [mental health support]

Dealing with the fast-paced life of a college student can be challenging, even when we're not in the midst of a worldwide crisis. I encourage you to reach out when you need mental health support (e.g., anxiety, depression). Students have access to counseling services on

campus (Student Success Center, 0222). Make an appointment by visiting cougarcare.siu.edu or by calling [618-650-2842](tel:618-650-2842).

COVID-19 Pandemic Policies Related to Classroom Instruction (Spring 2021)

This class will not be meeting in person at any time. Nevertheless, I am including an excerpt from SIUE's *COVID-19 People-Focused Health and Safety Policy*, which can be found in its entirety here: <https://www.siu.edu/policies/Covid.shtml>

General Health Measures

At all times, students should engage in recommended health and safety measures, which include:

- Conducting a daily health assessment. If you have COVID-19 symptoms, but not yet tested positive, have had COVID-19 close contact exposure, or are COVID-19 diagnosed as presumptive or confirmed positive, stay home and contact your health provider or SIUE Health Service at cougarcare@siue.edu or 618-650-2842. More information is available on the SIUE COVID-19 website.
- Frequent washing or disinfecting of hands.
- Social distancing by maintaining a distance of at least six feet from others.
- Face masks or face coverings that cover the nose and mouth are required in indoor public spaces regardless of the ability to maintain social distance. Indoor public spaces include common spaces or community settings that anyone can access, such as reception areas with walk-in access, restrooms, hallways, classrooms, teaching and research laboratories, as well as common spaces in residence halls, conference rooms, lobbies, and break rooms.
- Adhere to directional signs and traffic flow patterns in buildings and offices. Doors for entering and exiting buildings will be designated. Where multiple doors exist, in and out doors will be marked with "Entrance" and "Exit" signs.

Subject-to-Change Clause:

All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.

Week	Date	Topic	Reading Chapter	Due by 11:59pm	Also Due by 11:59pm	
1	Mon Jan 18	Martin Luther King Jr. - NO CLASS				
	Wed Jan 20	Asynch lecture: SCIENCE!	R.M. ch. 1	lecture worksheet		
	Fri Jan 22	<i>Synch Lab: PsycINFO, Reading papers</i>		lab worksheet		
	Sun Jan 24			weekly comp. check	Pre-Course Q'are	
2	Mon Jan 25	Asynch lecture: Hypotheses	R.M. ch. 2	lecture worksheet		
	Wed Jan 27	Variables	R.M. ch. 3	lecture worksheet		
	Fri Jan 29	<i>LAB: start group projects, summarizing articles</i>		lab worksheet		
	Sun Jan 31			weekly comp. check	CITI ethics training	
3	Mon Feb 1	Stats! whattttt	Stats ch. 1	lecture worksheet		
	Wed Feb 3	Surveys, Descriptive/Observational methods	R.M. ch. 13	lecture worksheet		
	Fri Feb 5	<i>LAB: developing survey Qs, project proposal</i>		lab worksheet		
	Sun Feb 7			weekly comp. check	Project Proposal v. 1	
4	Mon Feb 8	Ethics	R.M. ch. 4	lecture worksheet		
	Wed Feb 10	Selecting Research Participants	R.M. ch. 5	lecture worksheet		
	Fri Feb 12	<i>LAB: Ethical vignettes, group work (Qualtrics)</i>		lab worksheet		
	Sun Feb 14			weekly comp. check	Project Proposal v. 2 (Qualtrics)	

Week	Date	Topic	Reading Chapter	Due by 11:59pm	Also Due by 11:59pm
5	Mon Feb 15	Distributions	Stats ch. 2	lecture worksheet	
	Wed Feb 17	Central tendency (e.g., mean)	Stats ch. 3	lecture worksheet	
	Fri Feb 19	<i>LAB: writing intro (lit review), using SPSS</i>	R.M. ch. 16	lab worksheet	
	Sun Feb 21			weekly comp. check	Draft 1 (intro)
6	Mon Feb 22	Variability, Standard deviation	Stats ch. 4	lecture worksheet	
	Wed Feb 24	Z-scores	Stats ch. 5	lecture worksheet	
	Fri Feb 26	<i>LAB: project data analysis in SPSS</i>		lab worksheet	
	Sun Feb 28			weekly comp. check	Draft 2 (+method)
7	Mon Mar 1	Correlation & Regression	Stats ch. 14	lecture worksheet	
	Wed Mar 3	Probability	Stats ch. 6	lecture worksheet	
	Fri Mar 5	<i>LAB: correlation & regression in Excel</i>		lab worksheet	
	Sun Mar 7			weekly comp. check	Draft 3 (+results)
8	Mon Mar 8	Chi-Square	Stats ch. 15	lecture worksheet	
	Wed Mar 10	NO CLASS, unless needed for catchup			
	Fri Mar 12	<i>LAB: final project presentations</i>			Draft 4 (final paper)