

2007 Paper Outline

PSYC230-07B (HAM/TGA) -- Cognitive Psychology

Lecturer Dr. Samuel G. Charlton, K1.09, ext 6534, email samiam@waikato.ac.nz
Office Hours: Tues & Fri 10.00-11.00, and by appointment

Paper Description The objective of this paper, **Cognitive Psychology**, is to provide students with an overview of current methods and theories in cognitive psychology. Cognitive psychology is the study of cognitive processes (such as memory, attention, and decision making) and their implications for human behaviour using the methods of experimental investigation. Students will be expected to participate in laboratory exercises, by means of the laboratory practicals, designed to illustrate current principles, theories, and methods of cognitive psychology research.

Prerequisites PSYC 103 (General and Experimental Psychology), or an equivalent paper. Students who do not have this background and who have been granted a waiver to enter the course will need to familiarise themselves with the first-year material in order to perform well in this module.

Required Text *Cognition: The Thinking Animal – 3rd Edition*, by Daniel B. Willingham, 2007, Prentice Hall, New Jersey.

Assessment	Test 1 (multiple choice questions)	35%
	Test 2 (multiple choice questions)	35%
	Laboratory journal	20%
	Laboratory quizzes	10%

There is no external examination for the paper. The assessment for this paper will be based on a mid-term test (worth 35%), an end-of-term test (worth 35%), a laboratory journal summarising the laboratory demonstrations (worth 20%), and laboratory quizzes (10%). The first test covers lectures, class discussions, and readings from the first half of the term while the second test covers lectures, discussions, and readings from the second half. Make-up tests are not given except by arrangement with the lecturer prior to the test. The tests are compulsory components; students failing to complete both tests will receive an IC grade. Normally all work will be marked within two weeks of the due date and grades will be allocated in accordance with the standard University grading system.

Important Dates Test 1 will be held in class on **16 August**. Test 2 will be held in class on **11 October**. The Laboratory Journal is due no later than **23 October** at the Faculty Information Centre (Tauranga students can send them via post to Faculty Information Centre, Arts & Social Sciences, University of Waikato, Private Bag 3105, Hamilton). Students who wish to request an extension of time for the Laboratory Journal must do so on the Department's Extension Request Form, before the due date. This form is available from the Psychology office. (Also see "Due Dates" section below.)

Lecture Notes and course handouts are available on-line via the ClassForum web page.

Video Conferencing Please note that the lectures for this paper are given simultaneously at the Hamilton and Tauranga campuses by means of the video conferencing facilities. This means that during some of the class meetings your lecturer will interact with you over the video/audio link. You will still be able to ask questions and every attempt will be made to make this just as enjoyable as having your lecturer physically present for all your lectures.

Lecture Schedule and Timetable Students are expected to attend both lectures each week: Tuesdays 12 to 1 and Thursdays 10 to 11, (held in LG.03 at Hamilton and at Tauranga in B.01). Students should have completed the required readings prior to the lecture on that subject.

Date	Topic	Required readings
10 July	Course Introduction & Review	None
12 July	The Approach of Cognitive Psychology	Chapter 1
17 July	Attention	Chapter 4
19 July		
24 July	Sensory Memory & Primary Memory	Chapter 5
26 July		
31 July	Memory Encoding	Chapter 6
2 August		
7 August	Memory Retrieval	Chapter 7
9 August		
14 August	Review for test	None
16 August	Test 1	
20 thru 31 August	Teaching Recess	
4 Sept	Memory Storage	Chapter 8
6 Sept	Visual Imagery	Chapter 9
11 Sept	Decision Making	Chapter 11
13 Sept		
18 Sept	Problem Solving	Chapter 12
20 Sept		
25 Sept	Language & Cognitive Development	Chapter 13
27 Sept		
2 Oct	Applied Cognitive Psychology	None
4 Oct		
9 Oct	Review & course evaluation	None
11 Oct	Test 2	

Description of Laboratory Practicals The laboratory practicals have been designed to illustrate the cognitive principles discussed in the lectures. The practicals are held in the JB.03 computer laboratory in Hamilton and in the G.20 computer laboratory in Tauranga. There are nine laboratory practical times to choose from in Hamilton (including a Kaupapa Māori laboratory session) and one each week in Tauranga. You will sign up for a practical time at the beginning of the term and should plan on attending the same session throughout the term. Hamilton students will sign up for practical sessions on the 2nd year notice board (1st floor of K block).

Students will keep a typed journal summarising each of the four practical experiments and results obtained. The format and due date for the laboratory journal is described below. Additionally, brief quizzes will be given during four of the practical sessions. The quizzes are very short and are designed to give students a chance to see the type of questions that will be on the tests, practice answering questions on the material, and encourage them to keep up with the assigned reading. No make-up quizzes will be available.

Laboratory Timetable

Week of	Practical Topic	Assessment
9 July	No laboratories	
16 July	Exp 1. The Duration of the Icon	
23 July	Exp 2. Scanning Short Term Memory	Quiz #1
30 July	Exp 2. Scanning Short Term Memory (cont.)	
6 August	Exp 3. Organisation in Memory	Quiz #2
13 August	No laboratories – study for Test 1	
25 August thru 5 September Teaching Recess		
3 September	Exp 3. Organisation in Memory (cont.)	
10 September	Exp 4. Mental Rotation of Images	Quiz #3
17 September	Exp 4. Mental Rotation of Images (cont.)	
24 September	Exp 5. Applied Cognitive Psychology	Quiz #4
1 October	Exp 5. Applied Cognitive Psychology (cont.)	
8 October	No laboratories – study for Test 2	

Laboratory Journal format The journal should contain short descriptions of laboratory experiments 2 through 5. Each entry in your laboratory journal should be should be typed (1 - 2 pages in length) and clearly labelled with your name and student Id number, and the title of the practical. The entries describe what you did, why you did it, what you found out, and how you felt about it. There are 5 components to the report, each worth 1 point. Each of the components is shown in the following example:

1) State the cognitive principle or issue demonstrated by the practical.

2) State the hypothesis, the independent variable, and the dependent variable.

3) Give an example of a trial for each experimental condition; describe the sequence of events in the trial.

4) Describe your results: report the mean for each condition and attach a graph or table of the results on a separate page. Do your results support the hypothesis?

5) What were your subjective impressions (what were you thinking and how did you accomplish the task)? How do these results relate to the cognitive principle you described at the beginning of the report?

Ima Student
 Id 0154321
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Data Sheet – Group Data
 rs recalled:

Laboratory Journal Entry #1: Duration of the Icon
 By Ima Student, Id 0154321

This practical demonstrated how visual information is stored briefly in the visual sensory register (iconic memory). It was designed to show how long information in the sensory register lasted.

The experimental hypothesis was that the percent of letters recalled would be higher for the partial report technique and a higher percentage of letters would be recalled with shorter recall delays. The independent variables were the Partial report vs the Full report conditions (cue vs no cue) and the length of recall cue delay (0, 150, or 500 msec). The dependent variable was the percent of letters recalled in each condition.

The experiment began with 20 practice trials, 10 in the full report condition and 10 in the partial report condition. In the full report condition a fixation point (a plus sign) was presented on the computer screen followed by a brief flash of information (three rows of four letters each, presented for 50 msec). The participants had to try to report all of the letters flashed on the screen (in any order). In the partial report condition the flash of information was followed by a cue for which row of letters to report; a high tone meant report the top row of letters, a mid tone meant report the middle row, a low tone, the bottom row. These tones occurred either immediately after the flash (0 msec delay), 150 msec after the flash, or 500 msec after the flash. After the practice trials, the participants completed 30 trials in the full report condition and 30 trials at each cue delay.

The results showed that the percent of letters recalled was highest for the 0 msec and 150 msec delays and lowest for the 500 msec delay and full report conditions. These results were averaged for all the participants and are shown on the attached data sheet. The results supported the experimental hypothesis and showed that information in iconic memory faded away within 500 msec.

As a participant in the experiment, I found it hard at first to do the task. But with practice I found that I could just blurt out the correct letters if I didn't think about it too hard or too long. The information seemed to be there just waiting, but only if I answered right after the tone sounded. The iconic memory was there, even though I wasn't aware of it!

500 msec delay	Full report
31.5%	28.7%

Important Policies and Regulations

Electronic submission of work for assessment

It is the Department of Psychology policy that only coursework which is listed as submittable electronically in the course outline may be submitted that way. All other work submitted for assessment must be printed out on paper and handed in to the Faculty Information Centre. Work may not normally be submitted electronically to Psychology academic staff, the Psychology Office staff or the Faculty Information Centre with a request for it to be printed out and handed in to the FIC.

Workloads

The amount of work expected of a typical student in a half-paper module (offered over one semester) is approximately 6 hours per week. This figure is only approximate, as papers vary in their requirements and students vary in both the amount of effort required and the level of grades they wish to achieve.

Class Representation

Students will be advised at the first lecture of the class representative system. The Academic Services Division Co-ordinator for this system can be contacted at 'The Gateway', extension 6264, email: student.reps@waikato.ac.nz.

Due Dates

Students are required to complete and submit all paper work e.g., the Laboratory Journal) by the dates specified by the lecturer (October 23 in the case of the journal). These dates will be varied only if an extension is given in writing by the person authorised to do so for the paper concerned, or if other provision has been made under the Assessment Regulations 2001. Unless an extension has been granted, a piece of work which is submitted after the specified date will have 1% a day subtracted from the mark.

Health and Safety Requirements

Students are required to comply with any safety regulations, including fire evacuation procedures (which are displayed below the fire alarms in every building).

Even More Policies and Regulations

1. University policies and regulations which are contained in the University Calendar:

- Assessment Regulations
- Policy on the use of Maori for Assessment
- Human Research Ethics Regulations
- Student Discipline Regulations
- Computer System Regulations
- Student Research Regulations

2. Other information of importance to all students which can be assessment on the Psychology Department website at <http://www.waikato.ac.nz/wfass/subjects/psychology/forms/>. This includes:

The Department's policy on electronic submission of work for assessment; Regulations relating to IC grades, withdrawal from papers and the calculation of the level of honours at Honours and Masters levels; Referencing guidelines; Plagiarism; Class Representation; Tutoring Assistance for International Students; Health and Safety Requirements; Children on Campus; Complaints Procedures; Policies relating to the Query of Marking and Final Grades; Medical Certificate Requirements; Graduate Advisor Policy; Kaupapa Maori Policy; Directed Studies Policy; Departmental policy in relation to the use of cell phones in tests and examinations