



UNIVERSITY
OF TASMANIA

School of Information Systems

Faculty of Business

BSA413/757 Research Methods

Semester 1, 2007

Unit Outline

Dr Kristy de Salas

CRICOS Provider Code: 00586B

Contact details

School Web site URL: www.utas.edu.au/infosys/

Unit coordinator: Dr Kristy de Salas

Lecturers: Mr Malcolm Bertoni
Prof Peter Marshall
Assoc Prof Paul Turner

Campus: Hobart

e-mail: BSA413help@infosys.utas.edu.au

Phone: 6226 6200

Fax: 6226 6211

Consultation hours: Dr Kristy de Salas
Tuesday 11.00-12.00. Other times strictly by
appointment via the IS reception.
Mr Malcolm Bertoni
To be advised

Contents

UNIT SUMMARY	2
UNIT DESCRIPTION	3
AIM	3
LEARNING OUTCOMES AND EVIDENCES	3
GENERIC GRADUATE ATTRIBUTES	4
PRIOR KNOWLEDGE &/OR SKILLS	4
LEARNING RESOURCES REQUIRED	4
DETAILS OF TEACHING ARRANGEMENTS	5
UNIT SCHEDULE	6
LEARNING EXPECTATIONS AND STRATEGIES	7
SPECIFIC ATTENDANCE/PERFORMANCE REQUIREMENTS	8
ASSESSMENT SUMMARY	8
HOW YOUR FINAL RESULT IS DETERMINED	8
SUBMISSION OF ASSIGNMENTS	8
REQUESTS FOR EXTENSIONS	9
PENALTIES	9
REVIEW OF ASSESSMENT AND APPEALS	10
FURTHER INFORMATION AND ASSISTANCE	11
HELP RESOLVING CONCERNS ABOUT THIS UNIT	12
ASSESSMENT DETAILS	13
APPENDIX 1 - WHAT IS ACADEMIC INTEGRITY?	24
COMMONLY USED TERMS	24
APPENDIX 2 - COMMON FORMS OF ACADEMIC DISHONESTY	25
APPENDIX 3 - HOW TO ACHIEVE AND MAINTAIN ACADEMIC INTEGRITY	26
APPENDIX 4 - WHAT HAPPENS IF I DON'T MAINTAIN ACADEMIC INTEGRITY?	27

Unit summary

Unit code	BSA413/757
Unit title	Research Methods
Unit description	This unit is a compulsory unit in the Bachelor of Information Systems, Honours and Master of Information Systems. It is designed to provide students with an understanding of research issues and methods required for the conduct of a research dissertation as part of the honours or masters program.
Teaching staff	Dr Kristy de Salas, Mr Malcolm Bertoni, Prof. Peter Marshall, Assoc. Prof. Paul Turner.
Campus & mode	Hobart Delivery via Workshops
Unit weight	12.5%
Teaching pattern	1 x 3 hour workshop (weeks 1-5) 2 x 3 hour workshop (weeks 6-12)
Pre and Corequisites	None
Mutual exclusions	None
Assessment	Continuous assessment – 100%
Required texts, etc	Social Research Methods: Quantitative and Qualitative Approaches, 6/E W. Lawrence Neuman , Publisher: Allyn & Bacon, Copyright: 2006, ISBN-10: 0205457932
Recommended reading	Material as indicated by Lecturer.
Access to information technology	Honours Students will have 24 hour 7 day a week access to the research area on level 3, Information Systems Building while enrolled in the program. Masters students will have 24 hour 7 day a week access to room 225, Information Systems Building while enrolled in the program.
Courses	<i>Notes:</i> Login codes are printed on the student's Statement of Fees and Enrolment. Use of these login codes is based on the assumption that each student has read and agreed to abide by the Ethics Agreement form.
Faculty web site	www.utas.edu.au/business/

Unit Description

This unit covers conceptual frameworks; refining a research question; ethics; dimensions of research; research philosophy; critical analysis; literature review; research plan; quantitative and qualitative research design; validity and reliability; interviewing; qualitative coding; questionnaire design; statistical analysis; critical comparison of methods.

Aim

This unit introduces a range of research issues and methods applicable to the conduct of applied information systems research. The unit also provides students with the skills necessary to design and assess alternative approaches to a specific research problem.

Learning outcomes and Evidences

On completion of this unit, you should have gained:

An understanding of the issues and methods applicable in Information Systems research;

Assessment

HD: Demonstrate significant in-depth understanding of the issues and methods applicable to information systems research

DN: Demonstrate an extensive understanding of the issues and methods applicable to information systems research

CR: Demonstrate a sound understanding of the issues and methods applicable to information systems research

PP: Demonstrate a sufficient but limited understanding of the issues and methods applicable to information systems research

The capacity to design, communicate and assess research plans for IS projects;

Assessment

HD: Demonstrate significant capacity to design, communicate and assess research plans for IS projects.

DN: Demonstrate an extensive capacity to design, communicate and assess research plans for IS projects.

CR: Demonstrate a sound capacity to design, communicate and assess research plans for IS projects.

PP: Demonstrate a sufficient but limited capacity to design, communicate and assess research plans for IS projects.

The ability to critically assess and evaluate alternative approaches to researching an IS problem.

Assessment

HD: Demonstrate significant ability to critically assess and evaluate alternative approaches to researching an IS problem.

DN: Demonstrate an extensive ability to critically assess and evaluate alternative approaches to researching an IS problem

CR: Demonstrate a sound ability to critically assess and evaluate alternative approaches to researching an IS problem

PP: Demonstrate a sufficient but limited ability to critically assess and evaluate alternative approaches to researching an IS problem

Generic graduate attributes

Attribute	Descriptor	Unit Specifics
Knowledge	Graduates will have an in-depth knowledge in their chosen field of study and the ability to apply that knowledge in practice. They will be prepared for life-long learning in pursuit of personal and professional development.	Develop a broad knowledge of issues and methods applicable in information systems research; Understand and be able to critically assess and evaluate alternative approaches to researching information systems problems ; Be capable of applying this knowledge to the design and implementation of a research plan ;
Communication Skills	Graduates will be able to communicate effectively across a range of contexts.	Work individually and in groups on practical problem solving related to the conduct of IS research ; Demonstrate a high level of research report writing and oral communication skills; Discuss relevant problems with others, present their own opinions and critically assess the opinions of others.
Problem-solving Skills	Graduates will be effective problem-solvers, capable of applying logical, critical and creative thinking in a range of problems. They will have developed competencies in information literacy.	Engage in individual and group problem solving using a variety of information systems methods ; Conceptualise problems and be able to formulate a range of potential solutions; Gain a researcher perspective on the types of problems encountered and means of identifying and analysing them.
Global Perspective	Graduates will be able to demonstrate a global perspective and inter-cultural competence in their professional lives.	Appreciate the issues inherent in conducting information systems research; Understand the importance of research and research methods in information systems theory and practice;
Social Responsibility	Graduates will act ethically, with integrity and social responsibility	The social and ethical standards of the profession will be reinforced; The social impact of IS research will be explored.

Prior knowledge &/or skills

Knowledge of the domain of Information Systems and Business.

Learning resources required

Requisite texts

Social Research Methods: Quantitative and Qualitative Approaches, 6/E

W. Lawrence Neuman, Publisher: Allyn & Bacon, Copyright: 2006, ISBN-10: 0205457932

Recommended reading

Material as indicated by Lecturer.

WebCT Vista

Unit Materials made available on the course Vista site accessible at:

<http://www.utas.edu.au/coursesonline/>. To access WebCT Vista from your own computer you will need the appropriate software, and hardware to run that software.

See *Learning Online* at <http://www.utas.edu.au/coursesonline/software.htm> for computer software you will need.

Note: Older computers may not have the hardware to run some of the required software applications. Contact your local IT support person or the Service Desk on 1818 if you experience difficulties.

See *WebCT Vista: Information for Students* for further information about accessing WebCT Vista.

Details of teaching arrangements

Workshops/seminars

Participation is expected at the following workshops:

- 1 x 3 hour workshop (weeks 1-5)
- 2 x 3 hour workshop (weeks 6-12)

Unit schedule

Week	Topic BSA413/757		Essential Readings	Deliverables	Lecturer
Week 1	(Tuesday 27 Feb 1.10-4.00pm) Introduction to research, insights into research in SoIS		Neuman – Chapter 1 & 2 <i>Additional materials as indicated by lecturer</i>		<i>Kristy de Salas</i>
Week 2	(Tuesday 6 March 1.10-4.00pm) Research Philosophy, the nature of scientific investigation including ontology, epistemology.		Neuman – Chapter 3& 4 <i>Additional materials as indicated by lecturer</i>		<i>Peter Marshall</i>
Week 3	(Tuesday 13 March 1.10-4.00pm) Literature & Writing a research proposal		Neuman – Chapter 5 <i>Additional materials as indicated by lecturer</i>		<i>Peter Marshall</i>
Week 4	(Tuesday 20 March 1.10-4.00pm) Qualitative versus Quantitative research Introduction to writing a thesis, method, analysis and interpretation		Neuman – Chapter 6, 7 & 8 <i>Additional materials as indicated by lecturer</i>		<i>Paul Turner</i>
Week 5	<i>No class – Assignment preparation</i>			Assignment 1 – Literature review	
Week 6	Qualitative (Tuesday 3 April 1.10-4.00pm) Qualitative Research Design	Quantitative (Friday 13 April 9am-12pm) Quantitative Research Design	Qual - Neuman – Chapter 13 & 14 Quant – As directed by lecturer		<i>Kristy de Salas/ Malcolm Bertoni</i>
	Qualitative (Tuesday 17 April) Qualitative Data Collection	Quantitative (Friday 20 April) Quantitative Data Collection			
Week 7	Qualitative (Tuesday 24 April) Qualitative Research Interview/ Data Analysis	Quantitative (Friday 27 April) Quantitative Data Analysis	Qual - Neuman – Chapter 15 Quant – As directed by lecturer		<i>Kristy de Salas/ Malcolm Bertoni</i>
	Qualitative (Tuesday 1 May) Practical Qualitative Data Analysis	Quantitative (Friday 4 May) Quantitative Data Analysis			
Week 9	Qualitative (Tuesday 8 May) Qualitative Data Analysis Presentations	Quantitative (Friday 11 May) Quantitative Validity & Reliability	Qual - As directed by lecturer Quant – As directed by lecturer	Assignment 2 – Qualitative Analysis Group Presentation	<i>Kristy de Salas/ Malcolm Bertoni</i>
	Qualitative (Tuesday 15 May) Validity & Reliability	Quantitative (Friday 18 May) Writing Up Quantitative Research			
Week 10	Qualitative (Tuesday 22 May) Writing Up Qualitative Research	Quantitative (Friday 25 May) Practical SPSS session	Qual - Neuman – Chapter 16 Quant – As directed by lecturer		<i>Kristy de Salas/ Malcolm Bertoni</i>
	Qualitative (Tuesday 1 May) Practical Qualitative Data Analysis	Quantitative (Friday 4 May) Quantitative Data Analysis			
Week 11	<i>No class - Assignment preparation</i>			Assignment 3– Qualitative Practical Assignment 4 – Quantitative Practical	

Occupational health and safety (OH&S)

The University is committed to providing a safe and secure teaching and learning environment. In addition to specific requirements of this unit you should refer to the University's policy at:

http://www.admin.utas.edu.au/hr/ohs/pol_proc/ohs.pdf

Learning expectations and strategies

Expectations

The University is committed to high standards of professional conduct in all activities, and holds its commitment and responsibilities to its students as being of paramount importance. Likewise, it holds expectations about the responsibilities students have as they pursue their studies within the special environment the University offers.

The University's Code of Conduct for Teaching and Learning states:

Students are expected to participate actively and positively in the teaching/learning environment. They must attend classes when and as required, strive to maintain steady progress within the subject or unit framework, comply with workload expectations, and submit required work on time.

It is expected that students will familiarise themselves with access and use of the WebCT/Vista system operated by the University for the electronic delivery of course materials, and for various forms of communication.

It is expected that students will consult email sent to their University email address at least twice a week for notices relating to the administration of the unit, and for notification of the results of assignments.

It is expected that students will read the background material specified in the course curriculum, will actively attend and participate in tutorials, and be prepared to discuss relevant issues arising with tutors, lecturers and fellow students.

Student Expectations of the Unit

Students enrolled in this Unit may reasonably expect the following:

1. To be able to contact a lecturer or tutor by electronic mail, to raise issues arising in the unit, either relating to content or student performance within the unit.
2. Subject to availability, to be able to discuss such issues in person with the lecturer or tutor.
3. That assignments will be marked and the marks will be returned with 3 weeks of due dates.
4. That all relevant notices regarding the administration of the unit, including any necessary changes, will be communicated to all students enrolled in the unit via email.

These expectations are in addition to those specified in relevant University regulations.

Learning strategies

If you need assistance in preparing for study please refer to your tutor or lecturer. For additional information refer to the Learning Development website :

<http://www.utas.edu.au/learndev/>

If you will be using WebCT/Vista for the first time and would like some information on how to use WebCT/Vista refer to the following guide:

http://www.utas.edu.au/coursesonline/docs/using_webct.pdf

Some of the units you will study use videoconferencing to deliver lectures and tutorials. To enable you to get the best out of a videoconference please refer to the following guide. <http://www.its.utas.edu.au/videoconf/vcstudentguide.pdf>

Specific attendance/performance requirements

Participation and the active contribution of all students in their workshop is expected.

Assessment Summary

Component	Weight	Due date
Assignment 1 – Literature Review	25% of total	Wednesday 28 th March 2007
Assignment 2 – Qualitative Analysis Group Presentation	15% of total	Tuesday 8 th May 2007
Assignment 3 – Qualitative Practical	30% of total	Friday 1 st June 2007
Assignment 4 – Quantitative Practical	30% of total	Friday 1 st June 2007

How your final result is determined

In order to pass a unit, the School of Information Systems expects that students:

- Achieve a total of at least 45% in each piece of continuing assessment of the unit; and
- Achieve a total mark of at least 50% in the total assessment of the unit.

Note:

In exceptional circumstances, the School reserves the right to adjust the above assessment rule.

Submission of assignments

Students must submit assignments for the unit by the specified dates and times (if given), unless prior approval has been granted via an assignment extension form, at least 24 hours before the assignment is due to be submitted.

Every assessment task has a due date and method of submission. These due dates and methods of submission must be adhered to.

For each piece of assessment, there will be only one method of submission. The method will be clearly identified on the assignment sheet.

Notes:

Students must take responsibility for the correct submission of their assignments.

Students are expected to adhere to the following procedure for submission:

Submitted files MUST be checked by the student to ensure that correct submission of the file has been undertaken.

Students are expected to notify the Lecturer WITHIN TWO HOURS of submission if their files have not been submitted correctly.

Students must take responsibility for safely backing up of their own files during the academic year to ensure that no files are permanently lost.

Requests for extensions

Extensions will be given only under the following conditions:

- Employment related issues: Arrangements for an extension must be made with the lecturer prior to the assignment due date. Documentation from your employer is required.
- Illness: A medical certificate must be presented to the lecturer either prior to the due date or as soon as possible after the due date.

The lecturer of the unit will address any extraordinary extension falling outside of these criteria.

All extensions must be applied for on the appropriate form, which is available at http://www.infosys.utas.edu.au/students/forms/asst_extension.pdf. Verbal extensions will not be accepted.

Students should not assume that all extension applications will be granted. Students must have received confirmation of the extension by the Lecturer in order for an extension to be granted.

Any extension granted will have a new submission due date and time.

Assignments that are not submitted by the due date and time will incur the following penalties:

Penalties

10% (of mark achieved) per day or part thereof (excluding extensions) for late submissions.

Review of assessment and appeals

1. It is expected that students will adhere to the following policy for review of any piece of **continuous assessment**.
 - a) Within 5 days of the release of the assessment result, the student should request an appointment with the Lecturer. **The student should be prepared to discuss specifically which section of the marking criteria they are disputing and why they consider the mark is inappropriate.**
 - b) Following this discussion, students may request a formal remark of the original submission (in accordance with Rule of Academic Assessment 111, clause 22.1). This remark will be undertaken, where practicable, by an alternative assessor.
2. Students under with Rule of Academic Assessment 111, clause 23 may also request a review of the **final result** in a unit. The request and payment must be made within 10 days from the date of the result notification.
Students are referred to:
<http://www.admin.utas.edu.au/HANDBOOKS/UTASHANDBOOKS/RULES/RULE111.html> and
http://www.admin.utas.edu.au/ac_serv/flowchart_review_assesment.pdf

Complaints Procedure

It is expected that students will adhere to the following policy for making any complaint or grievance directly related to a Unit:

- a) In the first instance, students are to approach the Lecturer or Unit Coordinator concerned and arrange a time to speak with them about their concern.
- b) If an issue remains unresolved, the student should approach the Head of School and arrange a time to speak with them about their concern.

If the School's internal policy of complaints is unable to resolve an issue, students should consult Ordinance 8 Student Complaints for further direction.

Academic referencing

In your written work you will need to support your ideas by referring to scholarly literature, works of art and/or inventions. It is important that you understand how to correctly refer to the work of others and maintain academic integrity.

Failure to appropriately acknowledge the ideas of others constitutes academic dishonesty (plagiarism), a matter considered by the University of Tasmania as a serious offence.

The appropriate referencing style for this unit is Harvard.

For information on presentation of assignments, including referencing styles:

<http://www.utas.edu.au/library/assist/gpoa/gpoa.html>

Please read the following statement on plagiarism. Should you require clarification please see your unit coordinator or lecturer.

Plagiarism

While students are encouraged to discuss the assignments in this unit and to engage in active learning from each other, it is important that they are also aware of the University's policy on plagiarism. Plagiarism is taking and using someone else's thoughts, writings or inventions and representing them as your own; for example downloading an essay wholly or in part from the internet, copying another student's work or using an author's words or ideas without citing the source.

"Plagiarism is a form of cheating. It is taking and using someone else's thoughts, writings or inventions and representing them as your own; for example, using an author's words without putting them in quotation marks and citing the source, using an author's ideas without proper acknowledgment and citation, copying another student's work.

If you have any doubts about how to refer to the work of others in your assignments, please consult your lecturer or tutor for relevant referencing guidelines, and the academic integrity resources on the web at <http://www.utas.edu.au/tl/supporting/academicintegrity/index.html>.

The intentional copying of someone else's work as one's own is a serious offence punishable by penalties that may range from a fine or deduction/cancellation of marks and, in the most serious of cases, to exclusion from a unit, a course or the University. Details of penalties that can be imposed are available in the Ordinance of Student Discipline – Part 3 Academic Misconduct, see <http://www.utas.edu.au/universitycouncil/legislation/> "

The University and any persons authorised by the University may submit your assessable works to a plagiarism checking service, to obtain a report on possible instances of plagiarism. Assessable works may also be included in a reference database. It is a condition of this arrangement that the original author's permission is required before a work within the database can be viewed.

It is important that you understand this statement on plagiarism. Should you require clarification please see your unit coordinator or lecturer. Useful resources on academic integrity, including what it is and how to maintain it, are also available at: <http://www.utas.edu.au/tl/supporting/academicintegrity/students.html>

Further information and assistance

If you are experiencing difficulties with your studies or assignments, have personal or life planning issues, disability or illness which may affect your course of study, you are advised to raise these with your lecturer in the first instance.

There is a range of University-wide support services available to you including Student Services, International Services and Learning Development. Please refer to the *Current Students* homepage at: <http://www.utas.edu.au/students/> Should you require assistance in accessing the Library visit their website for more information at <http://www.utas.edu.au/library/>

Help resolving concerns about this unit

In the first instance you should contact your lecturer. If the matter is still unresolved and you would like to know who to contact or the procedures for resolving your concern refer to the following website:

http://www.admin.utas.edu.au/ac_serv/complaints_info.html

The Hobart based Tasmanian University Union (TUU) or the Launceston/Burnie based Student Association (SA) may also be able to assist.

The School reserves the right to alter the details contained in this Unit Outline. Students will be advised of changes to the outline via their University email account and it remains the responsibility of the student to check their email for such changes.

Assessment Details

Assessment task 1

Task description

When commencing research, it is customary to review the academic literature to determine the state of knowledge as relevant to your research domain.

Your task is to undertake a literature review on one of the following four IS-related research areas:

1. The development of Information Systems Strategy in Small and Medium-sized enterprises
2. The use of Application Service Provision by SMEs
3. The current role of IS professionals in business
4. The alignment of IS strategy and organisational Business Processes.

For *one* of these areas, use academic literature to produce a report discussing of the current state of knowledge, including:

- The top academic authors writing in the area;
- The current issues being discussed by these authors; and
- Areas for future research in this area.

Task length

Approximately 2500 words

Links to unit's learning outcomes

The capacity to design, communicate and assess research plans for IS projects

Assessment criteria / guidelines

- Skills in collecting appropriate academic materials for a literature review.
- Skills in synthesising and analysing academic materials for a literature review.
- Skills in presenting referenced and well-developed arguments based on academic literature.

Due Date

Wednesday 28th March 2007

Assessment task 2– Qualitative Analysis Group Presentation

Task description

In a group, as allocated by your lecturer, you will identify and review *two* published journal articles in the Information Systems area that have used a qualitative research methodology.

Based on these articles, you will present a short (10 minute) presentation to the class discussing the following for each article:

- An overview of the research being conducted
- An overview of the epistemology of the researcher/s
- An overview of the qualitative research methodology employed
- An overview of the qualitative data collection techniques employed
- An overview of the qualitative data analysis tools employed
- A review of the benefits and limitations of the research method as employed in the article.

You will also provide a paper-based copy of the articles to the other members of the class.

Links to unit's learning outcomes

- An understanding of the issues and methods applicable in Information Systems research
- The capacity to design, communicate and assess research plans for IS projects
- The ability to critically assess and evaluate alternative approaches to researching an IS problem.

Assessment criteria / guidelines

- The ability to identify qualitative research designs in published materials
- The ability to assess qualitative research designs
- The ability to orally present information on qualitative research designs

Tuesday May 8th 2007

Due Date

Assessment task 3 – Qualitative Practical

Task description

You are required to work with the entire class to develop questions to be used in a semi structured interview relating to the following research question.

“What are the key challenges of securing corporate Information Systems in a University environment?”

The interview will be conducted, and audio taped, in class. The class is to select two people to conduct this interview. You will be sent (electronically) a typed transcript of the interview.

You are to analyse the interview using an appropriate data analysis tool. Assume an interpretivist epistemology when choosing and applying the tool.

You are present your chosen methodology and findings in written form, providing an answer to the research question.

Findings should display depth and insight derived from the data.

You are to submit the following:

- all working documents relating to your data analysis, and
- a written document outlining your data analysis, and presenting your findings.

Approximately 3000 words

Task length

Links to unit’s learning outcomes

- An understanding of the issues and methods applicable in Information Systems research
- The capacity to design, communicate and assess research plans for IS projects;
- The ability to critically assess and evaluate alternative approaches to researching an IS problem.

Assessment criteria / guidelines

- An ability to select an appropriate qualitative data analysis tool for a given context
- An ability to apply an appropriate qualitative data analysis tool for a given context
- An ability to present a written qualitative analysis overview and research findings as appropriate to a given context.

Friday 1st June 2007

Due Date

Assessment task 4 – Quantitative Practical

Task description

This assignment is to be completed in groups of two students

For this assignment, you plan and carry out a structured field **observation**. This is a quantitative study, measuring what people either eat inside Refractory Student's dining room or take their food away with them or eat outside. We will treat the eating outside and taking away as one category.

This is to be correlated with:

1. The time of day

You are to observe during the following times:

10.00 am-11.00 am

12.00 – 1.00 pm

2.00 pm – 3.00 pm

You can choose any day to do this observation. For the purpose of this assignment we are not going to look at any variations that might occur between the different days.

If you want, you can break the hours into parts (ie four parts of 15 minutes). It is up to you. But if you do so, then still keep the blocks in one hourly divisions and do **not** total the readings as this will give you an incorrect analysis result.

2. Times should be coded (time 1, time 2, time 3)
3. You can take photographs to back up any observations. There is a digital camera available for loan.

The following are the tasks:

- Undertake a pilot study to determine the validity of the times chosen
- Modify the observation as necessary
- Undertake the necessary data analysis and statistical analysis
- Develop pre-hoc hypothesis(es)
- Operationalise the independent and dependent variables, and do structured observation to test your hypothesis.
- Product a 3000 word report.

You will need to plan your observation procedures so that two of you can independently observe the same people or objects. To have a valid reliability check, you cannot collaborate or check with each other while you are doing the observations, but you have to observe the same things or the reliability check is meaningless. Remember that when you are observing people in public places you need to be watching the same things at the same time. Before the observation each group will need to agree upon a coding system so that both team members know what is required.

Points to remember:

- Quantitative observation is about counting, recording and summarising data.
 - So you will need to design a recording sheet for your observation. This must be done collectively for all the students to use.
- The observer is ideally an objective observer who does not participate nor influence what is being studied.
- You need a robust research aim or hypothesis.
- The independent variable is not manipulated but is constant.
- The investigator observes both the independent and dependent variables (day, time, number of people).
- You are to perform the analysis in Excel and **not** SPSS.
 - These analysis are:
 - Frequency distribution
 - Frequency table
 - Graphs (Histogram & Frequency Polygon)
 - Simple linear regression and correlation (r).
 - Suitable tests such as a two-way ANOVA without replication

Note: graphing the data will not be easy and you will need to think about it.

Calculate Your Reliability

Even when two people observe the same thing and follow the same rules, there will usually be some disagreement in the observation. This is more likely when you have done a “hard” variable to observe, rather than a trivially easy one. Inter-coder reliability is an excellent way to assess the accuracy with which it is possible to record data. This is somewhat tedious to do, but has the potential of being a valuable learning experience.

Compare your sheets and match up subjects, using the identifiers and any variable that is not ambiguous. Mark as “sampling error” subjects who do not match up. For each subject that does match up, check whether the independent and dependent variables are the same; mark everyone for whom you disagree about a variable.

Note: if you are counting or timing something, give yourselves a reasonable margin of error so you do not have to include too many errors. See me if you need help with this.

Expectations:

- You are expected to demonstrate a clear understanding of the major steps involved in the design and execution of a quantitative study;
- Attention to detail is very important; you are expected to clearly state each decision you made in the formulation of the hypothesis and the research design, and provide appropriate justification where necessary;
- You are expected to demonstrate your ability to present a clearly structured and well formatted report summarising the study;
- You are expected to undertake original research to support your study, using the library and other information sources;

- You are expected to spend up to three hours in observations as part of this practical.

Note that this process gives the students a framework around which to write their report, gives the specific language appropriate to discussing the relationship between two variables and asks the students to focus on what they expect to find – that is, exactly what are they hypothesising. Having a clear picture of the question/hypothesis allows them to write a more meaningful report.

Marking scheme:

The assessment sheet is overleaf. This sheet indicates the major areas of assessment and the standards expected within those areas.

Assessment:

This assignment will count 25% towards the final mark for BSA413/BSA757

Criteria

	Poor	Adequate	Good	Very Good	Outstanding
Understanding 30%	Did not appear to comprehend relevant issues	Sufficient, but limited comprehension shown	Demonstrated sufficient understanding of relevant issues	Clearly demonstrated good grasp of material	Showed significant insight into material
Research Design 40%	Weak or inadequate research design	Barely sufficient design; some obvious errors or problems	Acceptable design; could be improved	Well structured design	Outstanding design; showed use of multiple sources of information & initiative
Analysis 20%	Weak analysis	Barely sufficient	Reasonable analysis but lacked depth	Good analysis	Outstanding analysis; showed real insight
Presentation 10%	Poorly presented; weak style	Sufficient presentation; style is used; minor grammar, spelling defects	Well laid out as a scientific report, adequate style but lacked attention to detail	Very well laid out report; good attention to detail	Excellent presentation; style adds significantly to readability & understanding

Example of the processes:

Process in General Terms	Process in Practice
What are the variables involved in this study?	
How are they measured?	
Is there an explicit hypothesis here – perhaps based on previous research? If so, what is it – for two variables, phrase the hypothesis in terms of which group is more (or less) likely to. . . .	

<p>If there is no explicit hypothesis say what you expect to find. This could be a wild guess – use the words more (or less) likely to</p> <p>Who are you comparing? This is the Independent Variable, and Dependent Variable.</p> <p>In your initial sentence of expectations which level of the dependent variable were you focussing on?</p> <p>Look at all of the numbers – which group is actually more or less likely to.....?</p>	
<p>Give an overview statement that comments on this (don't use any percentages, just say more or less likely)</p>	
<p>Give the percentages to back this up.</p>	
<p>Is there a consistent pattern?</p>	
<p>Use ANOVA to comment on the significance of the relationship.</p>	

Writing the report:

The following format is suggested:

Title page. Title of report, author(s), date. Give your project a real title as if you were taking it seriously, not just **assignment 3** or some such.

As you worked with someone, make sure that there is only one report submitted and both student names and IDs are on the report.

Abstract. Write one paragraph which summarises your hypothesis, research methods,, and findings.

Body of paper.

Introduction. The introduction tells the reader about the problem to be studied and why it is important and interesting. You should start by introducing the reader to the general problem being studied. Write a paragraph stating your topic and why it is worth researching. Summarise observations relevant to the topic that came up in your unstructured research. Explicitly state your bivariate hypothesis and why you believe it is true. (If you are just guessing about the hypothesis, or team members disagree, just write about the reasoning in your guess, or what the disagreement is.) (Note: we will NOT normally do literature reviews in this assignment, but this is where it would go, and if something you read went into your thinking on this project, this is the appropriate place to discuss it).

Finally, you should describe your hypotheses or predictions about the results and again these should be theoretically motivated.

Note that sometimes you have no way of knowing what effect a variable will have, but want to explore its effects. In this case, it is better to say that you explored the effects of this variable than to try to make up a hypothesis that you can't justify theoretically. In other cases, an experiment is done to decide between two competing hypotheses. In this case, you should describe the two hypotheses and outline what the pattern of

results should be if each of the hypotheses is correct.

Methods/Methodology The method should contain enough information that another experimenter could replicate your study. Write this section in a more closely structured format. Number each section of this discussion.

Experimental Design is the actual design of the observation:

Type of study

How data was collected

Variables measured

Sampling technique

Any changes to the experiment after the pilot study

Perhaps a drawing of the location

Explain how you chose/constructed the data you analysed for your hypothesis test.

Materials

This should describe the stimulus materials used in your study. If you used special equipment (e.g., computers, specialized software), you also need to include an apparatus section.

Sampling Design.

In this section identify the independent and dependent variables and the different levels of the independent variables. Be sure to state which independent variables were between subjects and which were within subjects. When identifying dependent variables, do not use vague terms like “score”. Instead use more specific terms like “percent recall” or “reaction time in milliseconds”.

- a) Say what the units of analysis are (eg, people, minutes).
- b) Describe the setting of your research, the time of day you conducted it, and any details relevant to understanding your data.
- c) Describe your sampling procedures, including any restrictions placed on subjects, or other procedures for deciding whom to study within the setting.
- d) Discuss the problem of possible subjectivity in the sampling criteria; how did you operationalise the sample selection variables?
- e) Evaluation: why you think these procedures were good, or what you now believe should have been done differently.

Dependent variable.

- a) Why you chose your particular operationalisation.
- b) Complete details on your operationalisation as you planned it. This should be consistent with the notes in the appendix. (Note: This is never correctly a one-sentence answer. I’m looking for details of wording that tell me you know what is important about operationalisation, as well as for indications that you did things properly. Many people do it right but cannot explain it right.)
- c) How the operationalisation actually worked out.

d) Evaluation: why you think these procedures were good, or what you now believe should have been done differently.

Independent variable(s).

a) Why you chose your particular operationalisation.

b) Complete details on your operationalisation as you planned it. (Note: This answer is typically short, but it must be worded to show that you know what an operationalisation is.)

c) How the operationalisation actually worked out.

d) Evaluation: why you think these procedures were good, or what you now believe should have been done differently.

Reliability and Validity. Briefly discuss the dependability and consistency of the selected measures and reliability and validity checks.

Ethics. Briefly discuss your evaluation of the ethics of doing this research. Do you feel you invaded anyone's privacy? How did you feel about doing observation?

Pilot study

Introduction

Pilot study process

Establishment and Location

Time Frame

Data gathering process

Problems and solutions

Data collected

Data collection

Introduction

Participant Selection

Establishment and Location

Time Frame

Data gathering process

Problems and solutions

Data collected

Results. Don't forget to put the data collection sheet at the back as an appendix.

Introduction

Descriptive statistics

Graphs and tables

Standard Deviation, means

Inferential Statistics

Tests used

The results section should describe the data from your experiment. It is important to describe both *descriptive* and *inferential* statistics that you performed on your data. Descriptive statistics are the means, standard deviations, and standard errors for the different conditions in your experiment. These can be reported either in the text, a table or figure (my preference is to present data in figures as much as possible) and they should only be presented in one format. Tables and figures of your data should be placed in the back of your paper. If you use a table or figure, be sure to refer to it in the text at the relevant point.

Inferential statistics are the statistical tests that you performed (.g, ANOVA, t-test). In reporting your statistical results, you should report the statistic (t, F, etc.) and the degrees of freedom. Although the main discussion of your results occurs in the discussion section, you should briefly remind your reader of each major hypothesis before presenting the data relevant to that hypothesis. You should also point out the trends in your data here (noting whether they fit the predicted patterns) but do not discuss the theoretical implications of your data.

Test of hypothesis.

- a) Prepare a statistical table to show the relationship between your independent variable and dependent variable. Remember that you will have “Treatments” and “Blocks” and will need to put your data into a suitable format.
- b) Write a paragraph discussing your statistical results saying what they show and whether your hypothesis is confirmed or disconfirmed.

Discussion

Discuss these results

Discuss anything else worth mentioning that you learned in your research, including unexpected events or surprising findings.

Descriptive statistics

Inferential Statistics analysis

Limitations and alternative explanations

The discussion should explain the meaning and implications of your results. If you have significant effects that match your a priori hypotheses, then you should have no problem explaining what they mean. However, you also need to discuss significant results that do not fit with your hypotheses. Likewise, non-significant results should also be discussed.

In discussing why your results did not fit with your hypotheses, or the results of other research in this topic, you should think about ways in which your experiment differed from previous research. The most common reason given by students for why they did not get the predicted results in an experiment is that the sample size was too small. This is a possible explanation if (1) your sample size was smaller than that in similar experiments in the literature and (2) the pattern of results that you observed conformed to your hypotheses but the results were just not significant. Even if these two conditions apply, there might be some other reason why your results did not fit the predicted patterns. It could be that your original predictions were correct, but your methodology did not test them sufficiently. On the other hand, perhaps your original predictions were incorrect and the data from your experiment are indicative of

what is really true. Is a competing theory supported by your data? Remember that a confounding variable might provide an alternative explanation for your results.

Finally, any suggestions for future experiments should be described briefly. If your experiment did not conform to your predictions, maybe another experiment could explain why. Scientists often have their best ideas for experiments when they are trying to decide why another experiment doesn't work.

Conclusions and interpretations

This is where you talk about the larger issues your research raises, whether you feel that your findings are likely to be more generally true, and what research, if any, you would like to see pursued by yourself or others as a consequence of your research. For this class, it is also a chance to talk informally about what you liked or didn't like about the assignment or the way you did your research.

Appendices

The written operationalisation you planned in advance before data collection.

Your **observation** data collection sheet, the one you actually used in the field to get the data.

The work showing the computations for your reliability analysis and test of hypothesis. This can be done in an Excel spreadsheet.

Appendix 1 - What is academic integrity?

Academic integrity is about mastering the art of scholarship. Scholarship involves researching, understanding and building upon the work of others and requires that you give credit where it is due and acknowledge the contributions of others to your own intellectual efforts.

At its core, academic integrity requires honesty. This involves being responsible for ethical scholarship and for knowing what academic dishonesty is and how to avoid it.

Commonly used terms

Attribution: the ascribing of a work or an idea to a particular author or artist.

Citation: the act of directly quoting or giving intellectual credit to another person's work or ideas.

Collusion: “any form of joint effort, between students, or between students and other persons, intended to deceive an assessor as to who was actually responsible for producing the material submitted for assessment”. (University of Western Sydney 2000).

Common Knowledge: can be defined as facts known by a large number of people. These "facts" do not have to be cited.

Group work: can be described as “a formally established project to be conducted by a number of students in common, resulting in a single piece of assessment or a number of associated pieces of assessment”. (Newcastle University 2002).

Legitimate collaboration: Newcastle University describes legitimate collaboration as “any constructive educational and intellectual practice that aims to facilitate optimal learning outcomes through interaction between students”.

Paraphrasing:

1. A restatement of a text or passage in another form or other words, often to clarify meaning.
2. The restatement of texts in other words as a studying or teaching device.

Plagiarism: the stealing or passing off as one's own (the idea or words of another); use (a created production) without crediting the source; to commit literary theft; present as new and original an idea or product derived from an existing source (*Webster's Third New International Dictionary of the English Language, Unabridged*, p. 1728).

Quoting: to place an excerpt from a source word for word into one's paper. The source must be cited, giving credit to the original author.

Summarising: to put someone else's concept or main ideas into one's own words.

Appendix 2 - Common forms of academic dishonesty

- Cheating in an exam either by copying from other students or using unauthorised notes or other aids.
- Submitting, as your own, an assignment that another person has completed.
- Downloading information, text, computer code, artwork, graphics or other material from the Internet and presenting it as your own without acknowledgment.
- Quoting or paraphrasing material from a source without acknowledgment.
- Preparing a correctly cited and referenced assignment from individual research and then handing part or all of that work in twice for separate subjects/marks.
- Copying from other members while working in a group.
- Contributing less, little or nothing to a group assignment and then claiming an equal share of the marks.
-

From: James R, McInnis, C and Devlin, M (2002)
Assessing Learning in Australian Universities
Centre for the Study of Higher Education - University of Melbourne
Viewed 29 December 2002
<<http://www.cshe.unimelb.edu.au/assessinglearning/03/plagMain.html>>

Using words, ideas, computer code, or any work by someone else without giving proper credit is academic dishonesty. Academic dishonesty is often referred to as plagiarism or cheating.



When you use information from a source, you must cite it.

Appendix 3 - How to achieve and maintain academic integrity

Utilise the right sources

In order to articulate your ideas, defend your own argument and refute counter-arguments, you will need to identify the most appropriate sources of material to help you. In order to identify the most appropriate material you will need to evaluate your research results.

Start writing

The next step in the process is to document the validity of your position, and crediting those whose work you have used to establish your position. To do this you will need to apply the appropriate referencing style for your discipline to your work. If you are not sure what style you should be using check with your tutor or your unit outline.

The University also provides a list of preferred text referencing system for undergraduate students at

http://www.utas.edu.au/staff/tl/policies/School_referencing_system_table.htm

When you begin writing your assignment/project report you must give credit to the sources for the ideas you are using. There are standard ways to properly integrate sources into your assignment. They include:

- *Direct quotes* – This is when you place an excerpt from your source word for word into your paper. The source must be cited, giving credit to the original author.
- *Paraphrasing* – This means to restate a passage from your source in your own words. The source and author of the passage you paraphrase must be cited.
- *Summarising* – When you summarise the key concept or main idea from someone else's work in your own words, you must give credit for summarised ideas to the original source.

More information on writing skills

Developing your own writing style is an important part of good scholarship. For information and assistance on essay writing go to the Learning Development website at <http://www.utas.edu.au/learndev/essays.html>



Remember that when you use a direct quote, paraphrase or summarise to not only provide the in-text reference but also provide a full reference in your reference list.

Appendix 4 - What happens if I don't maintain academic integrity?

While studying at University you are expected to submit work that is your own. This does not mean that you can't use other people's ideas to support your own or to enhance your argument. What it does mean is that you are required by the University to acknowledge the source of those ideas as in text references in your assignments and the setting out of a list of references or a bibliography at the end of your assignment, acknowledging all sources utilised.

The academic tradition, on which Australian universities are founded expects that all scholarly efforts undertaken be done so in keeping with the rules of attribution. This means that all material that is submitted or presented for assessment that contains work other than your own, must be attributed to its source.

Failure to do so constitutes academic dishonesty (plagiarism). It is important that students understand how to correctly refer to the work of others and maintain academic integrity.

Ordinance 58: Student Discipline outlines the process for initiating formal discipline procedures for academic/general misconduct matters.

<http://www.utas.edu.au/universitycouncil/legislation/ord58.pdf>

You should also refer to any policies and procedures specific to your Faculty/School.