

# COGS705

# Advanced Principles of Cognitive Science: Language and Reading

S2 Day 2017

Department of Cognitive Science

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#### Disclaimer

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# **General Information**

Unit convenor and teaching staff Convener & Lecturer Eva Marinus eva.marinus@mq.edu.au Contact via Email

Lecturer Anne Castles anne.castles@mq.edu.au Contact via Email

Lecturer Lyndsey Nickels lyndsey.nickels@mq.edu.au Contact via Email

Bianca De Wit bianca.dewit@mq.edu.au

Credit points

4

Prerequisites Admission to MRes

Corequisites

Co-badged status

#### Unit description

This unit forms part of a four-unit core sequence covering a range of foundational and cuttingedge research topics in cognitive science, with an emphasis on active research programs at MQ. This team-taught unit is made up of a selection of 3-4 topic modules, led by experts specialising in these fields. Topics to be covered may include but are not limited to: the cognitive science and cognitive neuropsychology of reading and language, with a particular focus on reading development, language production, developmental and acquired dyslexia, and acquired aphasia.

### Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **Learning Outcomes**

On successful completion of this unit, you will be able to:

Advanced knowledge about theories of spoken language production, reading and reading development

Ability to read an empirical paper and identify its theoretical strengths, weaknesses and relevance

Ability to critically evaluate scientific methods, data and claims

Ability to identify and discuss relevant content of scientific papers and book chapters in own words

Ability to formulate a clear research question that follows up/builds upon a published study

Ability to present research to a variety of audiences in a clear and engaging way

# **General Assessment Information**

We expect 100% attendance but if there are any issues, please send us an email in advance of the class to let us know. Students need to read the literature thoroughly to enable a useful discussion.

#### Requirement to pass the unit

To pass the unit, the average mark across the three assessments needs to be 50% or higher. It is not a requirement to score a mark of 50% or higher for every assignment. It is, however, expected that all three assessments are attempted and submitted online.

#### **Late Penalties**

Late submission of an assignment will attract a penalty of 10% of the maximum mark for every day that the assignment is late (including weekend days). For example, if the assignment is worth 40 marks and your assignment is submitted 2 days late, a penalty of 2x10%x40 = 8 marks will be applied and subtracted from the awarded mark for the assignment. Work submitted more than 7 days after the submission deadline will not be marked and will receive a mark of 0. Please note that it is the student's responsibility to notify the University of a disruption to their studies and that requests for extensions for assignments must be made via the University's Ask MQ System (as outlined in the Disruption to Studies Policy).

### Assessment Tasks

Name	Weighting	Hurdle	Due
Reading Literature Report	33%	No	September, 15, 2017

Name	Weighting	Hurdle	Due
Presentation of RQ	34%	No	October 10, 2017
Language Literature Report	33%	No	November 17, 2017

### **Reading Literature Report**

Due: September, 15, 2017 Weighting: 33%

A summary and evaluation of the design and results of two or three research papers (or chapters) that are part of the literature for Module 1.

1250-1500 words.

On successful completion you will be able to:

- Advanced knowledge about theories of spoken language production, reading and reading development
- Ability to read an empirical paper and identify its theoretical strengths, weaknesses and relevance
- · Ability to critically evaluate scientific methods, data and claims
- Ability to identify and discuss relevant content of scientific papers and book chapters in own words

### Presentation of RQ

Due: October 10, 2017 Weighting: 34%

A spoken presentation (10 minutes) in which the student has to

- 1. Summarise two or three research papers (or chapters) from Module 2 leading to:
- 2. The formulation of a relevant Research Question (RQ)
- 3. And how this could be investigated (description of the study design)
- 4. There will be 5 minutes of question time after each presentation

On successful completion you will be able to:

- Advanced knowledge about theories of spoken language production, reading and reading development
- Ability to read an empirical paper and identify its theoretical strengths, weaknesses and relevance

- · Ability to critically evaluate scientific methods, data and claims
- Ability to identify and discuss relevant content of scientific papers and book chapters in own words
- Ability to formulate a clear research question that follows up/builds upon a published study
- · Ability to present research to a variety of audiences in a clear and engaging way

# Language Literature Report

#### Due: November 17, 2017 Weighting: 33%

Select one theoretical issue discussed in Module 3 and summarise and critically evaluate the evidence surrounding this issue in the research literature (using the references cited in the lectures as a starting point).

1250-1500 words

On successful completion you will be able to:

- Advanced knowledge about theories of spoken language production, reading and reading development
- Ability to read an empirical paper and identify its theoretical strengths, weaknesses and relevance
- · Ability to critically evaluate scientific methods, data and claims
- Ability to identify and discuss relevant content of scientific papers and book chapters in own words

# **Delivery and Resources**

For each Lecture, references to the literature (typically up to three papers and/ or chapters) will be provided at least two weeks in advance.

# **Unit Schedule**

Location: AHH 3.610 (see 15/8 and 24/10 for exceptions) Time: 10-12				
Week	Date Tuesdays 2017	Module and content	Lecturer	Assessment
1		NO CLASS		

#### Location: AHH 3.610 (see 15/8 and 24/10 for exceptions)

#### Time: 10-12

Week	Date Tuesdays 2017	Module and content	Lecturer	Assessment
2	8/8	1 - Unit intro & Basics on reading and reading development	Dr. Eva Marinus	
3	15/8 ROOM 3.716	1 - Reading fluency: Treatment and text presentation	Dr. Eva Marinus	
4	22/8	1 - Reading and learning to read in different languages	Dr. Eva Marinus	
5	29/8	1 - Learning to code and computational thinking	Dr. Eva Marinus	
6	5/9	2 - Acquired vs. developmental reading disorders	Prof. Anne Castles	
7	12/9	2 - Early visual letter processing and letter position dyslexia	Prof. Anne Castles	Report 1 on choice of topic/ literature of Module 1 Deadline: 15/9 5pm
	18 <b>-29/9</b>	SEMESTER BREAK		
8	3/10	2 - Precursors of learning to read: Phonological awareness	Prof. Anne Castles	
9	10/10	Student presentations	Marinus, Castles & Nickels	Presentation Research Question and Design on choice of topic Module 2
10	17/10	3 - Introduction to information processing models of language and to language impairments	Prof. Lyndsey Nickels	
11	24/10 ROOM 3.310	3 - The nature of representation and flow of activation in spoken word production Part I	Prof. Lyndsey Nickels	
12	31/10	3 - The nature of representation and flow of activation in spoken word production Part II	Prof. Lyndsey Nickels	
13	7/11	RESERVE		
14		NO CLASS		Report 2 on choice of topic/ literature of Module 3 Deadline: 17/11 5pm

# **Policies and Procedures**

Macquarie University policies and procedures are accessible from <u>Policy Central</u>. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic\_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy\_2016.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Complaint Management Procedure for Students and Members of the Public <u>http://www.mq.edu.a</u> u/policy/docs/complaint\_management/procedure.html

Disruption to Studies Policy (in effect until Dec 4th, 2017): <u>http://www.mq.edu.au/policy/docs/disr</u>uption\_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): <u>https://staff.mq.edu.au/work/strategy-</u>planning-and-governance/university-policies-and-procedures/policies/special-consideration

In addition, a number of other policies can be found in the <u>Learning and Teaching Category</u> of Policy Central.

#### **Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student\_conduct/

#### Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in <u>eStudent</u>. For more information visit <u>ask.m</u> <u>q.edu.au</u>.

### Student Support

Macquarie University provides a range of support services for students. For details, visit <u>http://stu</u> dents.mq.edu.au/support/

#### Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

# Student Services and Support

Students with a disability are encouraged to contact the **Disability Service** who can provide appropriate help with any issues that arise during their studies.

# Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

# IT Help

For help with University computer systems and technology, visit <u>http://www.mq.edu.au/about\_us/</u>offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.

# **Graduate Capabilities**

# PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

#### Learning outcomes

- Ability to read an empirical paper and identify its theoretical strengths, weaknesses and relevance
- · Ability to critically evaluate scientific methods, data and claims
- Ability to identify and discuss relevant content of scientific papers and book chapters in own words
- Ability to formulate a clear research question that follows up/builds upon a published study
- Ability to present research to a variety of audiences in a clear and engaging way

#### Assessment tasks

- Reading Literature Report
- Presentation of RQ
- Language Literature Report

# PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of

knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

#### Learning outcomes

- Advanced knowledge about theories of spoken language production, reading and reading development
- Ability to formulate a clear research question that follows up/builds upon a published study

#### Assessment tasks

- Reading Literature Report
- Presentation of RQ
- Language Literature Report

# PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

#### Learning outcomes

- Ability to read an empirical paper and identify its theoretical strengths, weaknesses and relevance
- · Ability to critically evaluate scientific methods, data and claims
- Ability to identify and discuss relevant content of scientific papers and book chapters in own words
- Ability to formulate a clear research question that follows up/builds upon a published study

#### **Assessment tasks**

- Reading Literature Report
- Presentation of RQ
- Language Literature Report

# PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create

new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

#### Learning outcome

 Ability to identify and discuss relevant content of scientific papers and book chapters in own words

#### **Assessment tasks**

- Reading Literature Report
- Presentation of RQ
- Language Literature Report

### PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

#### Learning outcome

· Ability to present research to a variety of audiences in a clear and engaging way

#### **Assessment tasks**

- Reading Literature Report
- Presentation of RQ
- Language Literature Report

# PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

#### Learning outcomes

 Ability to identify and discuss relevant content of scientific papers and book chapters in own words · Ability to present research to a variety of audiences in a clear and engaging way

#### **Assessment tasks**

- Reading Literature Report
- Presentation of RQ
- Language Literature Report

# **General overview**

This unit forms part of a four-unit core sequence covering a range of foundational and cuttingedge research topics in cognitive science, with an emphasis on active research programs at MQ. This team-taught unit is made up of a selection of three topic modules, led by experts specialising in these fields. The first two modules focus on reading, covering topics such as development, remediation and learning to read in different languages. The first module will also give a brief introduction to the novel discipline of learning to code. The last module focusses on theories of spoken word production and how evidence from acquired language disorders can inform these theories. Throughout the unit we discuss how cognitive scientists approach research questions and design experiments in these domains.