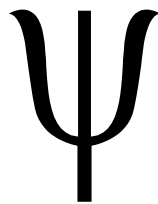


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Academic Discipline: Psychology and Counselling



Module IUPS6004
Cognition in Action

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Module Handbook

2022-2023

**Module IUPS6004
Cognition in Action**

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This handbook has been designed to provide you with the necessary information required for your progression throughout the module. It is very important that you refer to this handbook and the associated Moodle site regularly as it is your essential guide to module content and the learning outcomes required to complete the module.

Good luck with your studies. If you have any queries regarding this module, please contact the module leader.

Regards,

Dr Kate Williams

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Introduction to the module

This module will look towards understanding various aspects of cognition in applied contexts/the real-world (i.e., cognition in action). We will focus on cognitive applications (e.g., perception, attention, memory, learning, and decision making), and discuss aspects that influence how we behave in the real-world because of our cognitive thought processes. We will also discuss how aspects in the real-world can influence our cognition. The module is based on theoretical constructs and empirical research studies of humans in real-world contexts and the emerging understanding of the link between cognition, the brain, and behaviour in applied settings.

The module will cover areas relating to the debate on whether lab work can be used to understand cognition in applied/real-world contexts, the function of memory in a variety of real-world settings (e.g., eyewitness memory and learning/education), the impact of drugs on cognition, the reasons and consequences of cognitive failures and human error, and cognition in clinical contexts and forensic settings.

There are a range of reading suggestions provided within the online (Leganto) resources list for this module, which can be accessed via the module Moodle page. However, there is one core textbook that will be particularly useful for this module to provide a sound overview of the issues covered. Each lecture comes with essential readings. However, at Level Six, you should now be supplementing this with extensive reading of more specialist texts and relevant journal articles to gain a more in-depth understanding of the topic. Additionally, the use of alternative textbooks covering a similar depth and breadth as the core texts will not be detrimental to your ability to engage with the module.

CORE TEXT:

- Esgate, A., & Groome, D. *An introduction to Applied Cognitive Psychology*. Psychology Press (available as an E-book through the library system)

MODULE CODE: IUPS6004
TITLE: Cognition in Action

LEVEL: 6
CREDITS: 20

AIM(S)

To develop a critical understanding of key theoretical assumptions and empirical research in applied cognition and their application to real-world issues.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- Demonstrate the ability to integrate and apply multiple theories of cognitive psychology to real-life settings.
- Use evidence-based reasoning to critically evaluate competing theories in applied cognition research.
- Examine practical, theoretical, and ethical issues associated with the range of domains and methodologies in which applied cognition can be understood.
- Take responsibility for their own learning and skill development, including effective personal planning, self-reflection and project management skills.

INDICATIVE CONTENT

The content of this module will build upon topics introduced in the *Cognition and Emotion* module at Level Four and to topics introduced in the *Brain, Biology and Cognition* module at Level Five.

- Historical background and post-war developments in applied cognitive psychology.
- Evaluation of laboratory and field experiments.
- Memory in the real world: Educational settings; Eyewitness memory (confidence, suggestibility, & post-event questioning); limitations of working memory; flashbulb memories, autobiographical memories; violence and weapon focus; conscious and unconscious forgetting.
- Improving forensic science evidence: Recognising suspects: Describing and identifying faces; structure of police line-ups; interviewing techniques.
- Decision making in the real-world; juror decisions, security screening, medical diagnoses.
- Cognition and Clinical applications; cognition following concussion; psychological causes of forgetting; effects of drug taking on cognition.
- Cognition and ageing.
- Visual attention, vigilance, and situational awareness.
- Human error and cognitive failures in occupational settings.

Specific content coverage mapping onto BPS core curriculum will include exploration of human behaviour and cognitive processing involved in attention, perception, learning, memory, thinking, problem solving, decision making, language, consciousness and cognitive neuropsychology within a range of real-world scenarios.

LEARNING AND TEACHING STRATEGY

The module will be delivered through a combination of interactive lectures and seminars, which will introduce students to the evidence base and key areas surrounding lecture topics. At level six, students will be encouraged to use their scientific reasoning and critical evaluation skills to develop a more in-depth understanding of the topic areas.

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	30	15%
Independent learning	170	85%
Placement learning	-	-
TOTAL	200	100%

ASSESSMENT

Assessment Component 1

☐ Written exam ☒ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Essay	2,500 words	50%

A 2,500-word written essay enabling students to demonstrate an in-depth critical evaluation of applied cognition.

Assessment Component 2

☐ Written exam ☒ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Case Review Briefing Report	2,500 words	50%

A 2,500-word written assessment that involves students producing a case review briefing report. The aim is to assess whether students can apply their knowledge of theory from cognitive psychology to explain behaviour in real-world settings, with subsequent suggestions for methods of intervention or changes to policy/practice. The case review briefing report should be aimed at informing government/local health board/third sector organisation reviewers.

Assessment Summary

Activity type	Percentage
Written exam	
Coursework	100%
Practical	
TOTAL	100%

This module is not linked to a Professional, Statutory and regulatory Body (PSRB).

READING LIST

Module Code	IUPS6004	
Module Title	Cognition in Action	
Classification	Reading List entry	Electronic*
Essential	Groome, D., & Eysenck, M. (2016). <i>An introduction to applied cognitive psychology</i> . Hove: Psychology Press.	☐
Essential	Durso, F. T. (Ed.). (2006). <i>Handbook of applied cognition</i> . Chichester; NY: Wiley.	☐
Essential	Esgate, A., Baker, K., & Groome, D. (2005). <i>An introduction to applied cognitive psychology</i> . Hove: Psychology Press.	☒
Essential	Brewer, N., & Williams, K. D. (Eds.). (2017). <i>Psychology and law: An empirical perspective</i> . NY: Guilford Publications.	☒
Essential	Cohen, G., & Conway, M. A. (Eds.). (2007). <i>Memory in the real world</i> . Hove: Psychology Press.	☐
Further	Craik, F. I., & Salthouse, T. A. (Eds.). (2011). <i>The handbook of aging and cognition</i> . Hove: Psychology Press.	☐
Further	Memon, A. A., Vrij, A., & Bull, R. (2003). <i>Psychology and law: Truthfulness, accuracy and credibility</i> . Hoboken, NJ: John Wiley & Sons.	☐
Further	Barber, P. (2015). <i>Applied cognitive psychology: An information-processing framework</i> . London: Routledge.	☐
Further	Wickens, C. D., Hollands, S. B., & Parasuraman, R. (2013). <i>Engineering psychology and human performance</i> . London: Pearson.	☐
Further	Matthews G., Davies, D. B., Westerman, S. J., & Stammers, R. B. (2000). <i>Human Performance: Cognition, stress and individual differences</i> . Hove: Psychology Press.	☐
Further	Smith, T. J., Henning, R. A., Wade, M. G., & Fisher, T. (2014). <i>Variability in human performance</i> . Boca Raton, FL: CRC Press	☒
Further	Anderson, J. R. (2015). <i>Cognitive Psychology and its implications</i> (8 th ed.). NY: Worth.	☐
Further	Berger, D. E., Pezdek, K., & Banks, W. P. (Eds.). (2013). <i>Applications of cognitive psychology: Problem solving, education, and computing</i> . London: Routledge.	☐
Further	<i>Applied Cognitive Psychology</i>	☒
Further	<i>Journal of Applied Research in Memory and Cognition</i>	☒
Further	<i>Human Performance</i>	☒
Further	<i>Cognitive Psychology</i>	☒
Further	<i>Journal of Experimental Psychology: Applied</i>	☒

Module Assessment

The module is assessed through two components, each worth 50% of the overall module mark. The first assessment involves producing a traditional written word essay on a topic area covered as part of the module. The second assessment will be a case review briefing report. The purpose of the Case Review Briefing report aims to enable you to apply your knowledge of theoretical models within cognitive psychology to real-world issues and explain behaviour in real-world settings, with subsequent suggestions for methods of intervention or changes to policy/practice. The case review briefing report should be aimed at informing government/local health board/third sector organisation reviewers.

Whilst it is recognised you may fall behind at points with your reading, and it is not expected you will necessarily understand or absorb everything covered in lectures and essential readings at the time of coverage, there is an expectation you will have covered all necessary information by the end of the module.

In this handbook, you will see a table providing the allocated minimum number of hours you should be dedicating to preparing for the assessments. Although this should provide you with ample time, it emphasises the need to plan and ensure you spend the required time on your assessed work. You only get one opportunity at each assessment to maximise your marks, there are no second tries (unless you fail the module completely!) so give each piece of work the due care and attention that it deserves. We set high standards, we have high expectations – follow the guidance provided and put the effort in that is required and you can do well.

As this is a Level 6 module, it is expected that you will be well practised in the use of empirical evidence to evaluate theories. You must consider alternative theories and arguments. You should be looking to evaluate the strengths and weaknesses of the evidence and the theories, by using contrasting evidence and arguments, and through your own critical evaluation of the work. Your use of secondary sources (textbooks) should be limited. Primary sources (journal articles) should provide the key features of your work, giving depth to your arguments. Citing, referencing, writing style and overall presentation are expected to be impeccable at Level 6. Proofread carefully, as errors here will result in penalties.

Please see the Assessment Proformas on the module Moodle page for specific information regarding assessment questions, requirements, and submission deadlines.

For this module you must complete both pieces of work for assessment, but to pass the module you require a combined mark of 40% or higher.

Level 6 Assessment Criteria

At **Level 6** it is expected that students will demonstrate the following qualities:

- 1. Be able to work independently, with guidance, in a general and sustained way.**
2. Be able to apply the habits and techniques of independent learning to a major piece of research (the dissertation).
- 3. Be capable of assimilating and synthesising ideas and information so as to generate interpretations of a relatively original sort.**
- 4. Be able to handle relevant theories, methods and models in a confident and critical manner.**
- 5. Be familiar with primary source material in the research area and be capable of making extensive use of it.**
- 6. Be aware of a wide range of secondary material.**
- 7. Be capable of presenting a sustained argument in oral form and in a variety of settings, including tutorials and seminars.**
- 8. To have developed a degree of self-reflective thought so that personal interpretations themselves become subject to questioning.**
- 9. Be able to make use of appropriate computer applications.**
- 10. By making use of careful planning, be able to organise time effectively so as to identify areas of study, decide upon outcomes and achieve goals.**

The items highlighted in bold show that, at Level Six engagement with suggested literature and course materials, time management, and the development of a strategy for engaging with the topic area form key elements of assessment. Whilst the topics covered in the module may be complex there are clearly defined expectations regarding assessment that give scope to a Level Six student. For example, you may be asked to 'critically discuss' competing theories on a given topic, this allows you to provide an argument drawing upon evidence, and there is an expectation that you are able to interpret and critique the evidence.

Taught and Independent Study

Taught Sessions

The structure of the taught sessions in this module may vary from week to week, depending upon the topics covered, to allow us to explore them in different ways. The following pages set out the broad structure for this module. Sessions will cover some of the major theories and areas of research relevant to Cognition in Action and then also focus upon specific areas of the sub-topics covered. Throughout the sessions you should be able to display your knowledge of the topics, discuss the issues raised in the readings and experience some of the aspects of Cognition in Action in a practical manner. This handbook clearly sets out the requirements for your individual learning and it is expected that students will engage in the readings set out in this handbook.

Please note: Live sessions will start promptly at the specified time, and we will take short breaks throughout (this has to be flexible to fit with content delivery) and a time for the restart will be decided upon at that time.

Late entry will only be permitted at points where the academic staff feel it is appropriate, as it is unfair on students who have arrived on time when their session is disrupted by late-attending students. Please note that no materials will be repeated for those arriving late.

This handbook, the weekly planner, and the associated Moodle page should be used to keep track of what we are covering and what the requirements are for module preparation.

In addition, where indicated on Moodle, you will be set readings for the sessions, which will allow us to explore the topics in more depth. All session readings are classed as 'Essential' readings in addition to the lecture readings and attendance at sessions without having prepared should not occur and is considered unacceptable.

Please note that at Level 6 much of the recommended reading is based around specific journal articles tied into each lecture. There are suggested journal articles for you to read in preparation for each week of lectures on Moodle.

Readings

Readings/preparation for this module will largely follow the chapters of your core textbooks and, as such, should be easy to identify. The core texts are available through the Online Resources Link (Leganto) on the module moodle page and through the university library system. Therefore, everyone on the course has equal access to these readings.

Expected reading and preparation are set out in advance in the following pages. Readings beyond the core text for this module can be found through the University library system. Where a reading is not widely available (e.g., a book chapter) it will be made available on the module Moodle site. However, journal articles freely available through the University system will not be made available on Moodle – you will have to find them yourself!

Lectures can only provide you with a scaffold of information – it is your wider reading that will help you to develop a comprehensive understanding of the topics and discussions covered in this module. All readings for this module classed as ‘essential’ may be used as a source of assessment. It is suggested that you carry out the essential readings as we go along, as this will enhance your understanding of the overall topic. It is often best to read the associated reading in the week prior to the taught sessions and then again afterwards, as this will enable you to understand what will be covered in the sessions and then to consolidate that knowledge and clarify your learning afterwards. This module has been structured in such a way that the readings and lectures are highly integrated; someone who has prepared by carrying out the reading, listened to the lecture and then reviewed the material should develop a good understanding of the material. A student who listens to the lecture but does not carry out any of the readings will likely struggle to even understand what is being discussed in the lecture; they certainly will not develop the knowledge that will be required at more advanced levels of their degree.

Additional reading suggestions will be posted on Moodle from time to time, which will provide further depth to your knowledge, and you are encouraged to engage with as many of these readings as possible.

As noted above, the module Moodle page will also provide set readings, which will allow us to explore the topics in more depth. All additional readings are ‘Essential’ readings in addition to the lecture readings, and attendance at sessions without having prepared appropriately is considered unacceptable and should not occur.

Preparation reading chapters refer to the core text:

- Esgate and Groome – An Introduction to Applied Cognitive Psychology
 - Available as E-book

Lecture	Book and Chapter(s)	Suggested Allocated Time
Lecture 1	Chapter 1	1 hour
Lecture 2	Chapter 2 Chapter 5	2 hours 2 hours
Lecture 3	Chapter 3	2 hours
Lecture 4	Chapter 4	2 hours
Lecture 5	Links to Reading on Moodle: E-books	9 hours
Lecture 6	Chapter 9	2 hours
Lecture 7	Eysenck & Keane Cognitive Psychology (E-book) Chapter 15	2 hours
Lecture 8	Chapter 6 + Variability in Human performance: E-book Chapter 6	2 hours 2 hours
Lecture 9	Chapter 8	2 hours
Total Core Text Reading		28 hours
Reading of Journal articles on Moodle		30 hours
Total Reading		58 hours

*****Additional Readings from journals will be posted on Moodle *****

Assessment Plan Suggestions

<i>Suggested plan for written word essay (2,500 words) = 50%</i>		
Task	What it entails	Time assigned to task
Research essay	Find and read what an essay entails	2 hours
Research topic	Research information for the essay topic area through books and journal articles	Basic books/journal articles = 15 hours Advanced books/journal articles = 16 hours
Writing first draft	This should be done in Word, start writing your basic arguments	10 hours
Writing second draft	Check coherence of argument and structure of argument flow throughout	6 hours
Writing final draft	Write version to be submitted, complete with citations and full reference list	4 hours
Proofread and check	Proofread for structure and errors, check for presentation + submit to draft Turnitin portal to check for plagiarism.	3 hours
<i>Time allocated to assessment = 56 hours</i>		

<i>Suggested plan for Case Review Briefing Report (2,500 words) = 50%</i>		
Task	What it entails	Time assigned to task
Research Case Review Briefing Report	Find and read up on what a Case Review Briefing Report entails, using local health board/government websites	6 hours
Research topic area	Research information for the Case Review Briefing Report topic area through books, journal articles, and local health board/government websites. Decide on a cognitive theory	Basic books/journals /websites = 14 hours Advanced books/journals /websites = 14 hours
Writing first draft	In Word, start writing your basic arguments under each heading on the template	10 hours
Writing second draft	Check coherence of argument and structure of argument flow throughout	5 hours
Writing final draft	Write version to be submitted, complete with citations and full reference list	4 hours
Proofread and check	Proofread for structure and errors, check for presentation + submit to draft Turnitin portal to check for plagiarism.	3 hours
<i>Time allocated to assessment = 56 hours</i>		

Note: These are suggested allocated times and should be used as a guide only.

Lecture Series Information

Week One: Introduction and Historical Overview

For this first week, you will be introduced to the module and provided with key information regarding the structure of the module. We will then discuss early cognitive research and post-war developments in applied cognitive psychology. From here, we will then discuss the difference between laboratory and field research and discuss the suitability of conducting research related to real-world issues in the lab. Finally, we will end with a discussion on the aims of applied cognitive psychology and what it hopes to tell us about cognition in action.

Week Two: Memory in the real-world I

This week will examine models put forward that have attempted to explain how our memory works. For example, we will focus on working memory. We will consider how both internal and external factors impact our memory and the potential application of memory models to real-life issues faced by individuals that involve their ability to remember, for example certain occupations that rely heavily on good working memory. We will also particularly focus on the importance of memory in educational settings and techniques employed to assist in optimal learning.

Week Three: Memory in the real-world II

This week will focus on everyday memory including flashbulb memory, autobiographical memory, and differences between conscious and unconscious forgetting. We will then start to discuss the effects of emotion on memory in relation to eyewitness testimony. We will discuss eyewitness memory and suggestibility and whether there is a link between the confidence of an eyewitness and their accuracy. The purpose here will be to start setting the scene for next week's lectures, which will further explore other cognitive aspects in relation to forensic settings.

Week Four: Cognition in Forensic Settings I

We will build up from the information covered in the previous week that introduced you to the effects of a criminal event on memory, to further explore memory and the range of cognitive facets in relation to other key areas within forensic settings. We will discuss how line-ups are conducted and the procedures for ensuring they do not bias cognitive processing. We will also focus on evidence claiming that describing faces can impair our ability to recognise them at a future time point.

Week Five: Cognition in Forensic Settings II

This week will focus on another key component within the application of cognitive theory to applied forensic settings, and that relates to discussing interviewing techniques employed by law enforcement and police officers that are based upon fundamental principles drawn from cognitive psychology. We will also discuss the role of expert witnesses in highlighting to the courts the factors that may influence an eyewitness's memory.

Week Six: Decision Making in the Real-world

This week will end the section on cognition in forensic settings by discussing the elements that lead us to make decisions under heightened emotional circumstances. We will draw upon links here to practical applications of signal detection theory in relation to EWT decision making before moving on to discuss factors that can influence decision making in a range of other real-world settings. We will focus on decision making in clinical settings, which will set the scene for next week focusing on cognition and clinical application.

Week Seven: Cognition and Clinical Application

This week will continue from last week, where we began to discuss and examine the role of cognitive psychology in clinical application. We will focus on thought suppression and post-traumatic stress disorder, and the role of memory and attentional biases in clinical disorders. We will also discuss how aspects of cognition can influence the thought processes of clinicians and discuss the consequences and methods to circumvent potential cognitive biases that clinicians may experience.

Week Eight: Human Error and Cognitive Failures

Following on from the previous week that focused on potential shortfalls related to cognition in clinical settings, this week will focus on issues with cognition in wider real-world settings. We will specifically explore the factors that can lead to errors, which in turn can adversely affect our everyday lives. We will also discuss variables involved in our selection of action and choices, issues of compatibility and response, and various types of errors. The lecture will end by explicitly looking at errors in an organisational/work context, and methods implemented to remedy such issues. We will apply current models of human error to analyse real-life case studies of high-profile accidents and discuss whether human error in work can be reduced.

Week Nine: Drugs and Cognition

This week will focus on the effects of drugs on cognition in general and on certain cognitive processes, but also, we will focus on whether a person's cognition and cognitive processing plays a role in them wanting to experiment with drugs and potentially go on to abuse drugs. As part of this discussion, we will focus on legal and illegal drugs, and the effects they are thought to have on a range of cognitive processes, such as reaction time, memory and learning, attention, and alertness, etc. We will discuss the implications of drug taking on cognition in real-world settings, such as driving, and discuss the ethical and methodological issues associated with research in this area.