

SYLLABUS

**Cambridge International Level 3
Pre-U Certificate in
Psychology (Principal)**

9773

For examination in 2019, 2020 and 2021

This syllabus is regulated for use in England, Wales and Northern Ireland as a Cambridge International Level 3 Pre-U Certificate. QN: 500/3659/2

Changes to the syllabus for 2019, 2020 and 2021

The syllabus has been updated. The latest syllabus is version 3, published April 2019.

The link for the key study in the Gambling topic has been corrected.

Changes to the previous version of the syllabus, published September 2017, were:

The information on page 5 regarding availability for private candidates has been updated. Please see the *Cambridge UK Guide to Making Entries* for more information.

Changes to the previous version of the syllabus, published September 2016, were:

- The original research article on Cognitive development has been replaced with Musical preference.
- The Further research references, and reference to this in the Overview, in the following original research articles have changed: Bystander behaviour, Learning aggression, Romantic love as attachment, Diagnosing abnormality, Body dysmorphic disorder, Biological attraction, Stress.
- The Key study has changed in Body dysmorphic disorder.
- Reading lists in the 'Explore more' sections have been removed from the syllabus. 'Explore more' sections can be found in a separate document on Teacher Support.
- Reading lists at the end of Syllabus content for Component 3 have been removed and can now be found in the Resource Centre on the website, www.cie.org.uk/i-want-to/resource-centre
- Instructions for submitting an Outline Proposal Form for the Personal Investigation have been updated.

TQT

We have added guidance on Total Qualification Time value (TQT). TQT includes both guided learning hours and independent learning activities. The number of hours required to gain the qualification may vary according to local curricular practice and the learners' prior experience of the subject.

|| Significant changes to the syllabus are indicated by black vertical lines either side of the text. ||

You are strongly advised to read the whole syllabus before planning your teaching programme.

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Introduction

Why choose Cambridge Pre-U?

Cambridge Pre-U is designed to equip learners with the skills required to make a success of their studies at university. Schools can choose from a wide range of subjects.

Cambridge Pre-U is built on a core set of educational aims to prepare learners for university admission, and also for success in higher education and beyond:

- to support independent and self-directed learning
- to encourage learners to think laterally, critically and creatively, and to acquire good problem-solving skills
- to promote comprehensive understanding of the subject through depth and rigour.

Cambridge Pre-U Principal Subjects are linear. A candidate must take all the components together at the end of the course in one examination series. Cambridge Pre-U Principal Subjects are assessed at the end of a two-year programme of study.

The Cambridge Pre-U nine-point grade set recognises the full range of learner ability.

Prior learning

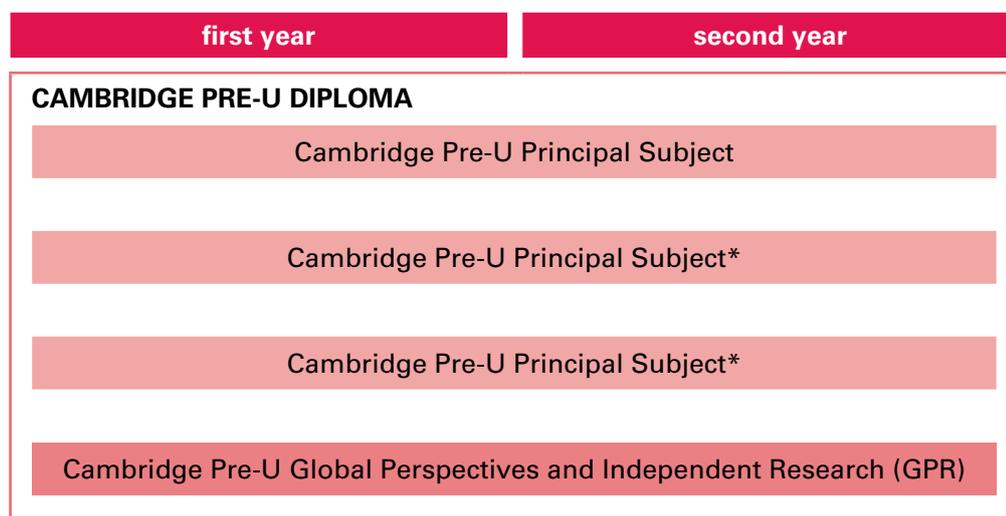
Cambridge Pre-U builds on the knowledge, understanding and skills gained by learners achieving a good pass in Level 1/Level 2 qualifications.

Progression

The Psychology Pre-U provides a foundation for the study of psychology or any related course in higher education requiring these skills. Although designed primarily for students intending to continue their studies in higher education, the abilities fostered by the Psychology Pre-U provide a solid grounding for students intending to progress directly into any form of employment requiring thinking skills, communication skills and an understanding of human nature.

Cambridge Pre-U Diploma

If learners choose, they can combine Cambridge Pre-U qualifications to achieve the Cambridge Pre-U Diploma; this comprises three Cambridge Pre-U Principal Subjects* together with Global Perspectives and Independent Research (GPR). The Cambridge Pre-U Diploma, therefore, provides the opportunity for interdisciplinary study informed by an international perspective and includes an independent research project.



* Up to two A Levels, Scottish Advanced Highers or IB Diploma programme courses at higher level can be substituted for Principal Subjects.

Learn more about the Cambridge Pre-U Diploma at www.cie.org.uk/cambridgepreu

Support

Cambridge provides a wide range of support for Pre-U syllabuses, which includes recommended resource lists, Teacher Guides and Example Candidate Response booklets. Teachers can access these support materials at Teacher Support <https://teachers.cie.org.uk>

Syllabus aims

The aims of the syllabus, listed below, are the same for all candidates and are to:

- provide an introduction to the methods of research, theories and concepts of psychology
- create an understanding of the range and limitations of psychological theory and practice
- develop skills of analysis, interpretation, application and evaluation
- promote an appreciation and understanding of individual, social and cultural diversity
- develop an understanding of ethical issues in psychology including moral and ethical implications of psychological research
- encourage students to explore and understand the relationship between psychological theories and research and everyday life
- encourage the development of communication and presentation skills
- encourage candidates to explore the latest psychological research
- design, carry out and report an individual piece of practical coursework.

Scheme of assessment

For Cambridge Pre-U Psychology (Principal), candidates take all four components.

Component		Weighting
Component 1 Key Studies and Theories	1 hour 30 minutes	20%
Written paper, short answer questions and an essay question.		
Externally assessed, 60 marks.		
Component 2 Methods, Issues and Applications	1 hour 30 minutes	20%
Written paper, structured essay questions.		
Externally assessed, 60 marks.		
Component 3 Key applications	3 hours	40%
Written paper, short answer questions, structured question and essay questions.		
Externally assessed, 120 marks.		
Component 4 Personal Investigation		20%
Internally marked, externally moderated, 60 marks.		

Availability

This syllabus is examined in the June examination series.

Some components are not available to private candidates. For more information, please see the *Cambridge UK Guide to Making Entries*.

Combining this with other syllabuses

Candidates can combine this syllabus in a series with any other Cambridge syllabus, except syllabuses with the same title at the same level.

Assessment objectives

A01	Knowledge and understanding Candidates should be able to: <ul style="list-style-type: none">• demonstrate knowledge and critical understanding of psychological theories, terminology, concepts, studies, perspectives, applications and methods in the areas of cognitive, social, biological, developmental, and the psychology of individual differences• demonstrate knowledge and critical understanding of psychological theories, terminology, concepts, studies, perspectives, applications and methods in two applied areas of psychology• communicate knowledge and understanding in a clear and effective manner.
A02	Analysis and evaluation Candidates should be able to: <ul style="list-style-type: none">• analyse and evaluate psychological theories, concepts, terminology, perspectives, applications and methods of research in the areas of cognitive, social, biological, developmental psychology, and the psychology of individual differences• analyse, evaluate and apply psychological theories, concepts, studies and research findings in two applied areas of psychology• communicate analysis and evaluation in a clear and effective manner.
A03	Research skills Candidates should be able to: <ul style="list-style-type: none">• design psychological research choosing from a range of methods and taking into account reliability, validity and ethics• carry out psychological research competently and ethically• clearly and effectively report research, present findings, analyse data, and draw conclusions• consider the reliability and validity of findings, consider the strengths and weaknesses of method and appreciate any ethical implications.

Relationship between scheme of assessment and assessment objectives

The approximate weightings allocated to each of the assessment objectives (AOs) are summarised below.

Assessment objectives as a percentage of the qualification

Assessment objective	Weighting in Pre-U %
A01 Knowledge and understanding	36
A02 Analysis and evaluation	44
A03 Research skills	20

Assessment objectives as a percentage of each component

Assessment objective	Weighting in components %			
	Component 1	Component 2	Component 3	Component 4
A01	50	40	45	0
A02	50	60	55	0
A03	0	0	0	100

Grading and reporting

Cambridge International Level 3 Pre-U Certificates (Principal Subjects and Global Perspectives Short Course) are qualifications in their own right. Cambridge Pre-U reports achievement on a scale of nine grades: Distinction 1, Distinction 2, Distinction 3, Merit 1, Merit 2, Merit 3, Pass 1, Pass 2 and Pass 3.

Cambridge Pre-U band	Cambridge Pre-U grade
Distinction	1
	2
	3
Merit	1
	2
	3
Pass	1
	2
	3

Grade descriptions

Grade descriptions are provided to give an indication of the standards of achievement likely to have been shown by candidates awarded particular grades. Weakness in one aspect of the examination may be balanced by a better performance in some other aspect.

The following grade descriptions indicate the level of attainment characteristic of the middle of the given grade band.

Distinction (D2)

Candidates should be able to:

- demonstrate and clearly communicate using appropriate terminology a very good level of knowledge and critical understanding of a range of psychological studies, theories, concepts, methods of research, findings (including possible cultural variations in such) and applications.
- demonstrate and clearly communicate using appropriate terminology effective analysis and evaluation of a range of psychological studies, theories, concepts, methods of research and findings (including possible cultural variations in such).
- demonstrate clearly that they are able to apply a range of psychological studies, theories, concepts, methods of research and findings (including possible cultural variations) to practical problems.
- demonstrate the ability to design, carry out psychological research, construct a thorough and coherent research report and in that report present findings, analyse data, consider the reliability and validity of findings, consider the strengths and weaknesses of method and appreciate ethical implications of the research.

Merit (M2)

Candidates should be able to:

- demonstrate and communicate using some appropriate terminology a good level of knowledge and critical understanding of a range of psychological studies, theories, concepts, methods of research, findings (including possible cultural variations in such) and applications.
- demonstrate and communicate using some appropriate terminology analysis and evaluation of a range of psychological studies, theories, concepts, methods of research and findings (including possible cultural variations in such).
- demonstrate they are able to apply a range of psychological studies, theories, concepts, methods of research and findings (including possible cultural variations) to practical problems.
- demonstrate the ability to design, carry out psychological research, construct a research report and in that report present findings, analyse data, consider the reliability and validity of findings, consider the strengths and weaknesses of method and appreciate ethical implications of the research.

Pass (P2)

Candidates should be able to:

- demonstrate and communicate some knowledge and critical understanding of some psychological studies, theories, concepts, methods of research, findings (including possible cultural variations in such) and applications.
- demonstrate and communicate attempts to analyse and evaluate some psychological studies, theories, concepts, methods of research and findings (including possible cultural variations in such).
- demonstrate application of some psychological studies, theories, concepts, methods of research and findings (including possible cultural variations) to practical problems.
- demonstrate some ability to design, carry out psychological research, construct a research report with some presentation of findings, some analysis of data, and some consideration of reliability and validity of findings, and/or strengths and weaknesses of method, and/or appreciation of ethical implications of the research.

Description of components

Component 1 Key Studies and Theories

Written paper, 1 hour 30 minutes, 60 marks.

Section A: 12 compulsory short answer questions (32 marks). This section will examine theory, methodology, issues, approaches, perspectives and surrounding research, including aspects of each key study. Candidates will be asked to describe, evaluate, compare or contrast and consider strengths or limitations.

Section B: One structured essay question from a choice of two (28 marks). The questions require description and evaluation of the theory and key study in a particular topic area such as obedience to authority. Questions will test not only knowledge and understanding but also analytical and evaluative skills, as well as requiring candidates to examine how further research has contributed to our understanding of the topic area. This section will give candidates the opportunity to apply any further research they may have done. You may also like to visit 'Explore More' in the Teaching Materials section on Teacher Support <https://teachers.cie.org.uk>

Component 2 Methods, Issues and Applications

Written paper, 1 hour 30 minutes, 60 marks.

Three compulsory structured essay questions:

Methodology: One question will examine candidates' methodological awareness. Questions will be included on types and characteristics of methods, issues arising from methods, strengths and limitations of methods. This question carries 20 marks.

Issues: One question will examine candidates' knowledge, understanding and evaluation of issues, approaches and perspectives in psychology arising from the key studies. This question carries 20 marks.

Applications: One question will examine candidates' knowledge and understanding of the applications of psychology to the real world. This question carries 20 marks.

Component 3 Key Applications

Written paper, 3 hours, 120 marks.

This written paper will include questions on five options. Candidates are required to answer questions from TWO options only. Questions from each option will be of the same format.

Section A: Two compulsory short answer questions on definitions, terminology, theory, applied studies, methodology, issues, approaches, perspectives and surrounding research. This section carries 18 marks.

Section B: One structured essay question from a choice of two questions (28 marks). The questions will be centred around two of the six applied topic areas and allow candidates the freedom to include in their answer any theory, evidence, issue or other information pertinent to the question. It will test not only knowledge and understanding but also evaluative skills and methodological awareness.

Section C: One compulsory structured question on the application of the applied theories and studies to a real life situation (14 marks). This question will be on a different topic from the Section B essay questions.

Component 4 Personal Investigation

60 marks

Design, conduct and report a psychological investigation. Topics can be taken from any area of the syllabus and students may pursue any appropriate area of psychology which is of interest to them.

Syllabus content

Component 1 Key Studies and Theories

Component 2 Methods, Issues and Applications

Fifteen original research articles have been chosen with two objectives in mind:

- to introduce classic research which has shaped modern psychology
- to demonstrate how psychological research has been, is, and ought to be undertaken.

The studies represent five core approaches in psychology.

In addition to including research articles (key studies), it is essential to consider either the theory on which they are based, or the theory which developed from them. The syllabus thus has the essential link between theory and research.

Research in psychology never ends and the third logical aspect is to consider (briefly) some of the latest developments in research arising either from theory or from the key study itself. The specific subject content detailed below follows these three core elements in a coherent and progressive manner.

Often key theory or research is dated: the Freud study is from 1904, Bandura from 1961 and Rosenhan from 1973. The excitement of psychology is often to look at what is new and the direction of research in a particular area. For example, the Milgram study will never be replicated in its original format, but it was in 2006 using virtual reality. Many of the 'further research' included in this syllabus were published in the last few years, reflecting the recent research.

'Explore more' sections can be found in a separate document on Teacher Support <https://teachers.cie.org.uk>. These are not a compulsory requirement but give guidance for further in-depth study. The 'Explore More' listings include a range of avenues of study, such as a textbook, a film, a questionnaire, or an example of a real life application.

The curriculum content of this syllabus appears to be extensive. However, it is designed to extend to 380 learning hours. **Each aspect of theory only needs to be covered briefly and the further research needs nothing more than the abstract. However, the key studies do need to be covered in full detail.** Reference to specimen papers will clarify the depth of knowledge and understanding required.

The key studies research papers have also been selected to indicate the wide range of methods available in psychological research. It is intended that by becoming familiar with this body of work candidates will be taught different methods and techniques, learn to appreciate the difficulties of designing research (matters of ethics, controls, control groups, ecological validity and so forth), and become equipped to evaluate research. Candidates should also become better equipped to carry out their own research.

Candidates will be expected to:

- be able to describe and evaluate each key study and theory using appropriate psychological terms and concepts
- be able to comment on further research linked to key study and theory
- be able to demonstrate an appreciation of the strengths and weaknesses of cognitive, social, developmental, biological and individual differences, approaches to explaining human behaviour. In addition, be able to demonstrate an appreciation of the strengths and weaknesses of the behaviourist and psychodynamic perspectives on human behaviour
- be familiar with methods and techniques such as self-report questionnaires/psychometric tests and interviews, observations (natural, controlled, participant), case studies, experiments (laboratory, field, natural/quasi) and correlations
- be able to describe, evaluate and apply methodological issues applicable to each method, for example: hypotheses, independent and dependent variables, controls, confounding variables, designs, biases (experimenter and participant such as demand characteristics), validity and reliability, longitudinal and snapshot studies, ethics, ethnocentrism, ecological validity, sampling techniques, generalisability, objective and subjective data, qualitative and quantitative data
- be able to describe, evaluate and apply issues and debates such as determinism and free will, nature and nurture, reductionism and holism, ethnocentrism, use of animals, use of children, usefulness/practical applications.

Cognitive Psychology

Eyewitness testimony

Overview: The key study by Loftus and Palmer (1974) has been selected to investigate the effect of leading questions on eyewitness recollection of an event. This study further supports Bartlett's view of memory as reconstructive and has evident implications for the legal system. The study by Wells and Bradfield (1998) illustrates one of these implications, that of misidentification in identity parades.

Background theory: Reconstructive memory (e.g. Bartlett).

Key study: Loftus, E and Palmer, J (1974) Reconstruction of automobile destruction. *Journal of Verbal Learning and Verbal Behaviour*, 13, 585–589.

Full text: <http://webfiles.uci.edu/eloftus/LoftusPalmer74.pdf>

Further research: Wells, G L and Bradfield, A L (1998) 'Good, you identified the suspect': Feedback to eyewitnesses distorts their reports of the witnessing experience. *Journal of Applied Psychology*, 83, 360–376.

Full text: https://public.psych.iastate.edu/glwells/Wells%20pdfs/1990-99/Wells_Bradfield_1998_JAP.pdf

Autism

Overview: The main characteristics of autism and Asperger's syndrome will be explored in this section with an emphasis on why lack of 'theory of mind' is a core deficit of autism. The key study by Baron-Cohen, Wheelwright, Hill, Raste and Plumb (2001) has been selected to demonstrate the use of the 'eyes test' as an advanced way of testing the theory of mind in adults. The study by Golan, Baron-Cohen, Hill and Rutherford (2006) is offering an alternative way of assessing these empathising deficits in autistic spectrum conditions.

Background theory: Characteristics of autism and Asperger's syndrome. Theory of mind (e.g. Baron-Cohen, 1990).

Key study: Baron-Cohen, S, Wheelwright, S, Hill, J, Raste, Y and Plumb, I (2001) The 'Reading the Mind in the eyes' test revised version: A study with normal adults, and adults with Asperger Syndrome or High-Functioning autism. *Journal of Child Psychology and Psychiatry*, 42, 241–252.

Full text: http://docs.autismresearchcentre.com/papers/2001_BCetal_adulteyes.pdf

Further research: Golan, O, Baron-Cohen, S, Hill, J J and Rutherford, M D (2006) The 'Reading the Mind in the Voice' Test-Revised: A Study of Complex Emotion Recognition in Adults With and Without Autism Spectrum Conditions. *Journal of Autism and Developmental Disorders*.

Full text: http://autismresearchcentre.com/arc_tests

Musical preference

Overview: Why do we like the music we do? Is it the genre? Is it properties of the music itself (lively, loud, etc.)? Greenberg et al. (2015) explain how individual differences in music preference can be explained by empathising-systemising theory. In the further research study, Rentfrow et al. (2012) suggest that there are five determinants of musical preference which are Mellow, Unpretentious, Sophisticated, Intense and Contemporary (conveniently MUSIC).

Background theory: Cognitive style: empathising and systemising. Determinants of musical preference.

Key study: Greenberg, D M, Baron-Cohen, S, Stillwell, D J, Kosinski, M and Rentfrow, P J (2015) Musical preferences are linked to cognitive styles. PloS one, 10(7), e0131151.

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0131151>

Further research: Rentfrow, P J, Goldberg, L R and Levitin, DJ (2011) The structure of musical preferences: a five-factor model. Journal of Personality and Social Psychology, 100(6), 1139.

http://projects.ori.org/lrg/PDFs_papers/RentfrowEtal2011StrucMusicPrefsJPSP.pdf

Social Psychology

Obedience to authority

Overview: Milgram's famous experiment on obedience (1963) has been selected as the key study to illustrate the conflict between obedience to authority and moral imperatives. Milgram's agentic state theory should be examined as an explanation for the findings. The study by Slater (2006) demonstrates how research has moved on to overcome the issue of ethics raised by the study by replication in a virtual reality environment.

Background theory: Why do people obey?

- Personal responsibility.
- The perception of legitimate authority (e.g. agentic state theory).

Key study: Milgram, S (1963) Behavioural Study of Obedience. *Journal of Abnormal and Social Psychology*, 67, 371–78. Full text: <http://psycnet.apa.org/journals/abn/67/4/371/>

Further research: Slater, M et al. (2006) A Virtual Reprise of the Stanley Milgram obedience experiments.

PLoS ONE 1(1): e39. doi:10.1371/journal.pone.0000039.

Full text: www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0000039

Prison simulation

Overview: Zimbardo's controversial prison experiment (1973) illustrates the power of social situations that make people act in uncharacteristic ways. The issue of social roles and deindividuation should be discussed in relation to the study. The BBC prison experiment has been selected as a more up-to-date replication of Zimbardo's experiment with findings that challenge the notion that people are simply controlled by social roles.

Background theory: The dispositional hypothesis, social roles and social identity theory.

Key study: Haney, C, Banks, C and Zimbardo, P (1973) A study of prisoners and guards in a simulated prison. *Naval Research Reviews*, 30, 9, 4–17.

Full text: www.zimbardo.com/downloads/1973%20A%20Study%20of%20Prisoners%20and%20Guards,%20Naval%20Research%20Reviews.pdf

Further research: Reicher, S and Haslam, S A (2006) Rethinking the Psychology of Tyranny: The BBC Prison Study. *British Journal of Social Psychology*, 45, 1–40.

Full text: [www.bbcprisonstudy.org/pdfs/bjsp\(2006\)tyranny.pdf](http://www.bbcprisonstudy.org/pdfs/bjsp(2006)tyranny.pdf)

Bystander behaviour

Overview: The area of bystander behaviour is explored with emphasis on explanations such as cost-benefit analysis, diffusion of responsibility and pluralistic ignorance. The key study by Piliavin, Rodin and Piliavin (1969) has been selected to investigate 'diffusion of responsibility' in a naturalistic setting. The more recent research by Thornberg (2007) investigated bystander behaviour in schoolchildren in a case study of a real-life situation.

Background theory: Why do people help or not help?

- Diffusion of responsibility, pluralistic ignorance (Latane and Darley).
- Cost-benefit analysis (Piliavin et al., 1981).

Key study: Piliavin, I, Rodin, J and Piliavin, J (1969) Good Samaritanism; an underground phenomenon? *Journal of Personality and Social Psychology*, 13(4), 289–299.
Full text: <http://psycnet.apa.org/journals/psp/13/4/289/>

Further research: Thornberg, R (2007) A classmate in distress: schoolchildren as bystanders and their reasons for how they act. *Social Psychology of Education*, 10(1), 5-28.
<http://link.springer.com/article/10.1007%2Fs11218-006-9009-4>

Developmental Psychology

Learning aggression

Overview: The Bandura, Ross and Ross (1961) key study has been chosen to introduce the social learning theory in relation to aggressive behaviour. Behaviourism as a perspective should also be considered here including the theories of classical and operant conditioning and the main work of Pavlov and Skinner. The more recent research by Holmes (2013) investigated whether children's exposure to violence resulted in their own aggressive behaviour.

Background theory: The Behaviourist perspective.

- Classical conditioning, e.g. Pavlov.
- Operant conditioning, e.g. Skinner.
- Social learning theory, e.g. Bandura.

Key study: Bandura, A, Ross, D and Ross, S A (1961) Transmission of aggressions through imitation of aggressive models. *Journal of Abnormal and Social Psychology*, 63, 575–582.

Abstract: <http://psycnet.apa.org/psycinfo/1963-00875-001>

Further research: Holmes, M R (2013) The sleeper effect of intimate partner violence exposure: long-term consequences on young children's aggressive behaviour. *Journal of Child Psychology and Psychiatry*, 54(9), 986-995. www.researchgate.net/publication/236101817

Romantic love as attachment

Overview: The area of romantic love as a form of attachment is introduced through the key study by Hazan and Shaver (1987). It is based on the three categories of attachment originally identified by Ainsworth. The more recent research by Patton et al. (2010) investigated the relationship between stalking behaviour in college students and other measures including attachment styles.

Background theory: Bowlby's maternal deprivation hypothesis; Ainsworth's attachment styles.

Key study: Hazan, C and Shaver, P (1987) Romantic Love Conceptualized as an Attachment Process. *Journal of Personality and Social Psychology*, 52, 511–524.

Full text: <http://www2.psych.ubc.ca/~schaller/Psyc591Readings/HazanShaver1987.pdf>

Further research: Patton, C L, Nobles, M R and Fox, K A (2010) Look who's stalking: Obsessive pursuit and attachment theory. *Journal of Criminal Justice*, 38(3), 282-290.

www.researchgate.net/publication/223160565

Psychosexual development

Overview: Freud's psychosexual stages of development with an emphasis on the Oedipus complex will be examined in this section. The key study of 'little Hans' by Freud (1909) has been selected to provide a platform for further exploration of psychoanalytic theory and concepts. Psychoanalysis has been largely criticised among other things for not being falsifiable. The study by Anderson and Green (2001) demonstrates efforts to test psychoanalytic theory with supporting evidence for Freud's theory of repression.

Background theory: Freud's psychosexual stages of development. The Psychoanalytic perspective.

Key study: Freud, S (1909) Analysis of a phobia of a five-year old boy. Pelican Freud Library. Vol. 8. Case Histories 1. ISBN 978 0140137989

Further research: Anderson, M C and Green, C (2001) Suppressing unwanted memories by executive control. Nature, v410, n6826, 131–134. Full text: www.nnc.icb.ufmg.br/hp/psicologia/S9.pdf

Individual Differences

Diagnosing abnormality

Overview: The study by Rosenhan (1973) has been selected to illustrate the limitations of psychiatric diagnosis of mental illness. Definitions of abnormality and DSM-5 as a diagnostic manual should also be considered. The more recent research by Wilson et al. (2000) analysed a week of children's television finding a high frequency of reference to mental illness, which was mostly negative.

Background theory: Definitions of abnormality including deviation from the norm and deviation from ideal mental health. The classification of mental disorders.

Key study: Rosenhan, D (1973) On being sane in insane places. *Science*, 197, 250–258. Full text: www.sciencemag.org/content/179/4070/250.abstract?sid=52131fcc-de64-4d3f-b421-13a8d24eac82

Further research: Wilson, C, Nairn, R, Coverdale, J and Panapa, A (2000) How mental illness is portrayed in children's television. *The British Journal of Psychiatry*, 176(5), 440–443. <http://bjp.rcpsych.org/content/176/5/440.full>

Gambling

Overview: This area considers explanations and characteristics of gambling addiction with a consideration of what 'traditional' theories have to say about gambling. The key study by Parke and Griffiths (2005) is an observation of aggression in male slot machine gamblers done in the UK. Extending from this is a case study of a female gambler looking at why her addiction started, how it affected her life and those around her and then how she tried to overcome her addiction.

Background theory: Explanations of gambling; structural characteristics of gambling; theories of gambling (behaviourist, need-state, cognitive, biological); features of addiction.

Key study: Parke, A and Griffiths, M (2005) Aggressive Behaviour in Adult Slot-Machine Gamblers: A Qualitative Observational Study. *International Journal of Mental Health and Addiction*, Vol. 2, No. 2, pp. 50–58. https://www.researchgate.net/publication/228478101_Aggressive_behaviour_in_adult_slot_machine_gamblers_A_qualitative_observational_study

Further research: Griffiths, M D (2003) Fruit machine addiction in females: A case study. *Journal of Gambling Issues*. <http://jgi.camh.net/doi/full/10.4309/jgi.2003.8.6>

Body dysmorphic disorder

Overview: Body dysmorphic disorder is a preoccupation with an imagined defect in physical appearance. The key study by Windheim et al. (2011) focuses on a major preoccupation of those with BDD, that of mirror gazing. The further research by Veale (2000) reports on BDD patients who had undergone cosmetic surgery, or made their own attempts at surgery.

Background theory: Clinical features and types of body dysmorphic disorder. Physical (surgical) and psychological treatments.

Key study: Windheim, K, Veale, D and Anson, M (2011) Mirror gazing in body dysmorphic disorder and healthy controls: Effects of duration of gazing. *Behaviour Research and Therapy*, 49(9), 555–564.
www.researchgate.net/publication/51465052

Further research: Veale, D (2000). Outcome of cosmetic surgery and 'DIY' surgery in patients with body dysmorphic disorder. *The Psychiatrist*, 24(6), 218–220.
<http://pb.rcpsych.org/content/24/6/218?rss%253D1%2526ssource%253Dmfr=>

Biological Psychology

Biological attraction

Overview: What makes someone attractive? The evolutionary perspective suggests that facial symmetry is preferred to asymmetry as it offers clues about the mating fitness of the beholder. The key study by Rhodes, Proffitt, Grady and Sumich (1998) provides evidence for the relationship between facial symmetry and attractiveness. The further research study by Little et al. (2014) investigated whether men and women prefer familiar or unfamiliar faces more, and found there was a difference in their preferences.

Background theory: Fitness related evolutionary theories including mate selection, good genes and differential parental solicitude.

Key study: Rhodes, G, Proffitt, F, Grady, J and Sumich, A (1998) Facial symmetry and the perception of beauty. *Psychonomic Bulletin and Review*, 5, 659–669.
www.springerlink.com/content/eq4178xr00474432/fulltext.pdf

Further research: Little, A C, DeBruine, L M and Jones, B C (2014) Sex differences in attraction to familiar and unfamiliar opposite-sex faces: men prefer novelty and women prefer familiarity. *Archives of Sexual Behavior*, 43(5), 973–981.
<http://link.springer.com/article/10.1007%2Fs10508-013-0120-2>

Stress

Overview: We all experience the physiological effects of stress and we can measure adrenaline production. In the key study by Wang et al. (2005) we can go beyond 'traditional' measures and look at how stress can be measured using the fMRI brain scanning technique. The further research investigates the incidence of post-traumatic stress disorder in adults who survived a traumatic event as a child.

Background theory: Physiology of stress: the Selye GAS model, and physiological measures. Psychological measures (questionnaires), stress management techniques.

Key study: Wang, J, Rao, H, Wetmore, G S, Furlan, P M, Korczykowski, M, Dinges, D F and Detre, J A (2005) Perfusion functional MRI reveals cerebral blood flow pattern under psychological stress. *PNAS* 2005 102: 17804–17809. www.pnas.org/content/102/49/17804.full.pdf+html

Further research: Morgan, L, Scourfield, J, Williams, D, Jasper, A and Lewis, G (2003) The Aberfan disaster: 33-year follow-up of survivors. *The British Journal of Psychiatry*, 182(6), 532–536.
<http://bjp.rcpsych.org/content/bjprcpsych/182/6/532.full.pdf>

Sleep and dreaming

Overview: We all sleep, but why? We all have 2–3 dreams per night, but why? From a consideration of the underlying theory, the Dement and Kleitman study (1957) looks more closely at the relationship between REM and NREM sleep and dreaming. Further research has categorised people as larks and owls and asks whether 'early to bed and early to rise' does actually make you healthy, wealthy and wise.

Background theory: Cycles of sleep; REM and NREM; functions of sleep.

Key study: Dement, W and Kleitman, N (1957) The relation of eye movements during sleep to dream activity: an objective method for the study of dreaming. *Journal of Experimental Psychology*, 53, 5.
Abstract: <http://psycnet.apa.org/journals/xge/53/5/339/>

Further research: Gale, C and Martyn, C (1998) Larks, owls and health, wealth and wisdom. *British Medical Journal*, Vol. 317 1998. www.bmj.com/cgi/reprint/317/7174/1675

Component 3 Key Applications

Key Applications is a logical progression from Components 1 and 2, but there is no reason why it could not be taken at the same time. Whereas the key studies of Components 1 and 2 look at a wide range of psychological subject matter, the Key Applications look at selected subject matter in more depth. There are five options available, which are:

- Psychology and Abnormality
- Psychology and Crime
- Psychology and Environment
- Psychology and Health
- Psychology and Sport.

Candidates must choose TWO options from this list of five. These options not only reflect the nature of modern psychology but also provide an appropriate context. A theory may be thirty years old, but a piece of supporting research may be much more recent and, as with Components 1 and 2, much research that is included is less than ten years old. Content has been chosen to reflect the nature of modern society and to interest and enthuse candidates. Sample areas of research from Psychology and Abnormality include how schizophrenics can be identified by smell, and various impulse control disorders such as kleptomania. Psychology and Crime includes new methods used by the police to identify liars, investigation of the psychological effects of the London bombing and profiling of serial killers. Psychology and Health focuses on the diet of children in schools and how television adverts helped smokers to quit alongside four other topics. The Psychology and Environment option includes the areas of wayfinding using a driving simulator and how music results in consumers spending more money. The Psychology and Sport option includes examples from a wide range of sports including hockey, English soccer teams' 'home advantage' and the role of alcohol in spectator aggression in rugby union. Detailed content appears below.

The structure of the syllabus content for Component 3 is similar to the format of Components 1 and 2. Components 1 and 2 have background theory, a key study and further research. Component 3 includes three similar sections: a theory section, a research section and an application. For Component 3 however, the key study can be located in the application, research or even theory section (if it is research to support a theory).

When teaching, the aim is not to cover everything listed in the content (below) in fine detail. The key study must be covered in detail with all other theory, research and application in significantly less detail. Candidates will need to know sufficient detail to be able to describe and evaluate and often knowing no more than an abstract will suffice.

Component 3 also has an 'Explore more' list of suggested further study which can be found in the accompanying document on Teacher Support (<https://teachers.cie.org.uk>).

For Component 3 candidates will be expected to:

- be able to describe and evaluate each applied key study using appropriate psychological terms and concepts
- be able to comment on further research linked to applied study and theory
- be able to describe and evaluate (strengths and limitations) theory and compare and contrast (when appropriate)
- be able to describe and evaluate (strengths and limitations) applications
- be able to demonstrate an appreciation of the cognitive, social, developmental, biological and individual differences and the behaviourist and psychodynamic perspectives as they apply to key applications of human behaviour and experience
- be able to describe and evaluate various methodological techniques used in applied studies
- be able to describe and evaluate methods and techniques such as self-report questionnaires/ psychometric tests and interviews, observations (natural, controlled, participant), case studies, experiments (laboratory, field, natural/quasi) and correlations
- be able to describe, evaluate and apply methodological issues applicable to each method, for example: hypotheses, independent and dependent variables, controls, confounding variables, designs, biases (experimenter and participant such as demand characteristics), validity and reliability, longitudinal and snapshot studies, ethics, ethnocentrism, ecological validity, sampling techniques, generalisability, objective and subjective data, qualitative and quantitative data
- be able to describe, evaluate and apply issues and debates such as determinism and free will, nature and nurture, reductionism and holism, ethnocentrism, use of animals, use of children, usefulness/ practical applications
- actively seek how applied studies relate to real life situations and settings.

Psychology and Abnormality

Perspectives in abnormality

Overview: There is no single definition of abnormality and so a variety of possibilities need to be considered. It is also important to consider how symptoms of an illness are diagnosed and into what classification the illness is placed. The major approaches and perspectives see illnesses in different ways and this has implications for the way in which illnesses are treated. The key study by Ahn et al. looks at the medical bias of illnesses held by psychiatrists.

Theory:

- Who is abnormal? (deviation from the statistical norm, deviation from ideal mental health, deviation from social norm).
- Classification and diagnosis of psychological abnormality (DSM-5).
- Models of abnormality: biomedical, behavioural, psychoanalytic and cognitive.

Research: Exorcism-resistant ghost possession treated with clopenthixol (Hale et al., 1994). Koro: A state of sexual panic or altered physiology? (e.g. Choudhrey).

Key study: Ahn, W K, Flanagan, E H, Marsh, J K and Sanislow, C A (2006) Beliefs about essences and the reality of mental disorders. *Psychological Science*, 17, 759–766.

Applications: Treatments of mental disorders: psychotherapy, cognitive behavioural therapy and drug therapy.

Schizophrenia

Overview: Schizophrenia is classified as a psychosis, which means the person has an impaired sense of reality. The characteristics of schizophrenia can vary. The cause of schizophrenia isn't known, but there are many explanations proposed by the differing models. The medical model believes in biochemical factors, but studies have shown genetic links and the research looks at another aspect, that of cortical abnormalities. The psychodynamic approach and one psychological approach provide alternative explanations. The key study discovers that schizophrenics have an impaired sense of smell.

Theory:

- Characteristics of schizophrenia (DSM-5).
- Explanations of schizophrenia including genetic and biochemical factors (e.g. twin and adoption studies and dopamine hypothesis), psychodynamic (e.g. schizophrenogenic mother) and psychological (e.g. the role of the family).

Research: Cortical abnormalities in schizophrenia (Goldstein et al., 1999). Influence of family life on the course of schizophrenic illness (Brown et al., 1962).

Key study: Brewer, W J, et al. (2003) Impairment of olfactory identification ability in individuals at ultra-high risk for psychosis who later develop schizophrenia. *American Journal of Psychiatry*, 160:1790–1794.

Full text: <http://ajp.psychiatryonline.org/article.aspx?articleid=176455>

Applications: Drug therapy. Cognitive Behavioural Therapy. ECT.

Depression

Overview: Abnormal affect concerns disorders of mood. Some sufferers have just depression (unipolar) whilst others have mood swings from mania to depression (which is bipolar depression). Explanations need to be considered, including the biomedical, psychoanalytic and cognitive models. The key study uses a questionnaire to investigate the genetic component of depression. Treatments for depression have been included such as the use of drugs and electro-convulsive therapy.

Theory:

- Categories of clinical depression (unipolar and bipolar depression).
- Characteristics of depression (DSM-5).
- Explanations of depression including the biomedical (e.g. monoamine neurotransmitters), psychoanalytic (e.g. Freud, 1917) and cognitive models (e.g. Beck's theory).

Research: Attentional bias and vulnerability to depression (Perez et al., 1999). Enhanced accuracy of mental state decoding in dysphoric college students (Sabbagh et al., 2005).

Key study: Silberg, J, Pickles, A, Rutter, M, Hewitt, J, Simonoff, E, Maes, H, Carbonneau, R, Murrelle, L, Foley, D and Eaves, L (1999) The Influence of Genetic Factors and Life Stress on Depression Among Adolescent Girls. *Archives of General Psychiatry*; 56(3): 225–232.
Full text: <http://archpsyc.ama-assn.org/cgi/content/full/56/3/225>

Applications:

- Cognitive Behavioural Therapy (e.g. Beck).
- Somatic Therapy (e.g. Prozac and ECT).

Anxiety disorders

Overview: There are many types of disorder which involve anxiety but in this section two common forms will be investigated – phobias and obsessive-compulsive disorder. Behaviourists believe that phobias are learned and the first human to develop a phobia was little Albert in 1920, the research study here. If a phobia is learned it can also be 'unlearned' or the patient can be 'de-sensitised'. People can be obsessive, compulsive or they can be obsessive-compulsive! This disorder is investigated in more detail in the key study which looks at the role of disgust-inducing pictures. Treatments for anxiety disorders are also considered.

Theory:

- Types of anxiety disorders (e.g. phobic disorders and obsessive compulsive disorder).
- Characteristics of anxiety disorders (DSM-5).
- Explanations of anxiety disorders including biomedical explanations (e.g. Eysenck, 1967), learning theory (e.g. avoidance conditioning model) and psychodynamic approaches (e.g. Freud, 1909).

Research: Conditioned emotional responses (Watson, 1920). Analysis of a phobia in a five year old boy (Freud, 1909).

Key study: Shapira, N A, Liu, Y, He, A G, Bradley, M M, Lessig, M C, James, G A, Stein, D J, Lang, P J and Goodman, W K (2003) Brain activation by disgust-inducing pictures in obsessive–compulsive disorder. *Biological Psychiatry*, 54, 751–756.

Full Text: <http://fmri.mbi.ufl.edu/articles/2003Shapira-disgust%20OCD.pdf>

Applications:

- Treatments for phobic disorders (e.g. systematic desensitisation, flooding and modelling).
- Treatments for Obsessive Compulsive Disorder (Cognitive Behavioural Therapy, exposure and response prevention, drug therapy).

Impulse control disorders

Overview: Impulse control disorders include the failure or extreme difficulty in controlling impulses despite the negative consequences. Typical disorders include kleptomania, pyromania, pathological gambling (all included here) but also include intermittent explosive disorder. Characteristics and explanations need to be covered, and these are fascinatingly written in the key study by Tice et al. (2001). Treatments for impulse control include medical, psychodynamic and behavioural treatments.

Theory:

- Types of impulse control disorders (e.g. kleptomania, pyromania and pathological gambling).
- Characteristics of impulse control disorders (DSM-5).
- Explanations of impulse control disorders.

Research: Treatment of Kleptomania Using Cognitive and Behavioral Strategies (Kohn and Antonuccio, 2002). Internet Gambling (Griffiths, 2002).

Key study: Tice, D M, Bratslavsky, E and Baumeister, R F (2001) Emotional distress regulation takes precedence over impulse control: If you feel bad, do it! *Journal of Personality and Social Psychology*, 80, 53–67. Full text: www.apa.org/pubs/journals/releases/psp80153.pdf

Applications: Treatments for impulse control disorders: Psychotherapy, behavioural modification and drug therapy.

Dissociative disorders

Overview: Dissociative identity disorder is the updated name for multiple personality disorder, reflecting the inclusion of similar disorders, such as fugue and amnesia. Amnesia is an inability to remember important aspects of one's life, and fugue goes further and is the partial or complete adoption of a new identity. The Thigpen and Cleckley study is a classic in this field whilst the 1997 study by Simeon looks at thirty cases providing insight into the disorder. Treatments from various models also need consideration.

Theory:

- Types of dissociative disorders: Dissociative Identity Disorder. Depersonalisation. Dissociative Amnesia and Fugue.
- Characteristics of dissociative disorders (DSM-5).
- Explanations of dissociative disorders (e.g. exposure to trauma, stress).

Research: A case of multiple personality (Thigpen, H and Cleckley, H, 1954). Family Etiology and Remission in a Case of Psychogenic Fugue (Venn, 1984).

Key study: Simeon, D, Gross, S, Guralnik, O, Stein, D J, Schmeidler, J and Hollander E (1997) Feeling unreal: 30 cases of DSM-III-R depersonalization disorder. *American Journal of Psychiatry*, Aug 1997; 154: 1107–1113. Full text: <http://ajp.psychiatryonline.org/article.aspx?articleid=172438>

Applications: Psychodynamic Psychotherapy. Hypnosis. Drug Therapy.

Psychology and Crime

Psychology of criminal behaviour

Overview: What causes criminal behaviour? Theories and research have been selected to provide an overview of different perspectives in understanding the criminal. Is criminal behaviour the result of brain dysfunction, distorted thinking patterns or does it develop within the family environment? Central to these questions is the nature versus nurture debate in psychology which should be discussed in relation to the suggested content. Applications derived from these theories should also be considered in this section.

Theory:

- Cognitive Theories: Rational choice theory (Cornish and Clarke, 1986) and Criminal Thinking Patterns (Yochelson and Samenow, 1976).
- Learning Theory: Differential Association Theory (Sutherland, 1939).
- Personality Theory: Personality theory and crime (Eysenck, 1977).

Research: Genetic explanations in the etiology of criminal behaviour (Mednick, 1987). Brain abnormalities in murderers (Raine et al., 1997).

Key study: Farrington, D P, Coid, J W, Harnett, L, Jolliffe, D, Soteriou, N, Turner, R and West, D J (2006) Criminal careers and life success: new findings from the Cambridge Study in Delinquent Development. Home Office Research Study No. 281. London: Home Office.
Full text: http://www.crim.cam.ac.uk/people/academic_research/david_farrington/hofind281.pdf

Applications: Situational Crime Prevention (Cornish and Clarke 1986). The Psychological Inventory of Criminal Thinking Styles (Palmer and Hollin 2003).

Psychological effects of crime

Overview: The BCS informs us about levels of crime and public attitudes to crime such as how much they fear crime. Theories in this section attempt to explain the increased fear of crime. Is media exposure to blame or the fear actually justified? The study by Rubin et al. (2005) has been selected to illustrate the psychological and behavioural impact of events such as the recent London bombings on the general public. Victims of crime suffer a number of psychological effects and commonly demonstrate symptoms of post traumatic stress disorder. Cognitive behavioural therapy and eye movement desensitisation are often used to treat PTSD sufferers.

Theory:

- Measuring crime: The British Crime Survey (Home Office, 2007).
- Fear of crime: Cultivation theory (Gerbner, 1973) and availability heuristic (Shrum, 1996).
- Effects of Crime: Characteristics of post traumatic stress disorder (DSM-5).

Research: Crime in England and Wales 2006/2007: Summary of the main statistics.
Full text: <http://webarchive.nationalarchives.gov.uk/20080528125053/homeoffice.gov.uk/rds/>
Television News and the Cultivation of Fear of Crime (Romer et al., 2003).

Key study: Rubin, G J, Brewin, C R, Greenberg, N, Simpson, J and Wessely, S (2005) Psychological and behavioural reactions to the bombings in London on 7 July 2005: cross sectional survey of a representative sample of Londoners. *British Medical Journal*, 331(7517): 606.

Full text: www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=16126821

Applications: Treating post traumatic stress disorder: Eye Movement Desensitization and Reprocessing (Shapiro, 2002) and Cognitive Behavioural Therapy.

Offender profiling

Overview: Offender profiling has been developed to identify the perpetrator of a crime based on the nature of the offence and the way it has been committed. Two approaches of offender profiling will be considered here, the FBI and British approaches along with the way in which murderers and crime scenes can be categorised. A critical evaluation of the effectiveness of offender profiling should also be discussed. A case study should also be considered.

Theory:

- Approaches to or types of offender profiling: FBI approach (top down) and the British approach (bottom up). Effectiveness of offender profiling (e.g. Mokros et al. 2002; Kocsis et al. 2002).

Research: categorising murderers and scenes: organised and disorganised (e.g. Douglas et al. 1992); expressive and instrumental (e.g. Salfati, 2000).

Key study: Pinizzotto, A J and Finkel, N J (1990) Criminal personality profiling: an outcome and process study. *Law and Human Behavior*, vol. 14, 3, 215-233
www.jstor.org/stable/1393465 or <http://www.springerlink.com/content/j56027k047114185/>

Applications: A case study of applied profiling (e.g. Canter's profile of John Duffy); profiling failures

The psychology of investigation

Overview: How successful are police officers at detecting lies? Why do suspects sometimes make false confessions and what is the best way of interviewing suspects? These are some of the questions that will be explored in this section.

Theory:

- Interrogation tactics (e.g. minimisation and explicit offer of leniency).
- Detecting lies and deceit (e.g. Vrij, 2000).
- False confessions (e.g. coerced compliance, coerced internalisation).

Research: Investigating true and false confessions (Russano et al., 2005). Police interrogations and confessions (Kassin and McNall, 1991).

Key study: Mann, S, Vrij, A and Bull, R (2002) Suspects, lies, and videotape: An analysis of authentic high-stake liars. *Law and Human Behavior*, 26 (June), 365–376.

Applications: Statement Validity Assessment. The Cognitive Interview Technique (Geiselman, 1984). Police and Criminal Evidence (PACE) Act 1984.

Full text: <http://link.springer.com/article/10.1023%2FA%3A1015332606792#>

Psychology of the jury

Overview: How does a jury reach a decision? Social psychology and research on conformity and group polarisation bring us closer to answering this question. But jury decision making is not always impartial and factors such as the attractiveness of the defendant and pre-trial publicity can affect its decision. The key study provides evidence that instructions to disregard inadmissible testimony are often ignored in the jury decision making process. How can we make sure that the jury reaches the right verdict?

Theory:

- Characteristics of the defendant: attractiveness (e.g. Sigall and Ostrove, 1975) and race (e.g. Pfeifer and Ogloff, 1991).
- Pre-trial publicity (Linz and Penrod, 1992).
- Group polarisation (Moscovici and Zavalloni, 1969) and conformity (Asch).

Research: Reconstructing memory. The incredible eyewitness (Lodtus, 1974). Racial bias in decisions made by mock jurors (Wuensch et al., 2002).

Key study: Kassin, S M and Sommers, S R (1997). Inadmissible testimony, instructions to disregard, and the jury: Substantive versus procedural considerations. *Personality and Social Psychology Bulletin*.

Full text: www.williams.edu/Psychology/Faculty/Kassin/files/kassin_sommers_1997.pdf

Applications: Juror Bias Scale (Kassin, 1983).

Punishment and treatment of offenders

Overview: Prison is a common type of punishment for offenders but they can also be placed on probation. Prisoners can participate in treatment programmes in the form of restorative justice or a 'cognitive' alternative. The key study looks at the effectiveness of enhanced thinking skills and reasoning and rehabilitation in reducing recidivism.

Theory:

- Types and functions of punishment (prison and probation).
- The psychological effects of imprisonment: depersonalisation (e.g. Zimbardo), suicide (e.g. Topp, 1979) depression (e.g. Paulus, 1988).

Research: The Prison-Based Sex Offender Treatment Programme – STEP 3 (Home Office).

Key study: Cann, J (2006) Cognitive skills programmes: impact on reducing reconviction among a sample of female prisoners. Home Office Findings 276. Full text:

<http://webarchive.nationalarchives.gov.uk/20110314171826/rds.homeoffice.gov.uk/rds/pdfs/06/r276.pdf>

Applications:

- Anger management treatments (e.g. Ireland, 2000).

- Sexual Offender Treatment Programmes (e.g. Beech et al., 1998).
- Restorative justice, cognitive skills programmes (e.g. Cann, 2006).

Psychology and Environment

Behaviour in emergency situations

Overview: How do people behave in emergency situations? Le Bon, supported by behaviour in the Chicago theatre fire, suggests social contagion develops and people behave like wild animals and panic. Such behaviour can be studied by laboratory experiments and simulation both inside and outside the laboratory. Social categorisation theory suggests that people are calm and look to help each other. Interviews with survivors (the key study) supports this view. If we know how people behave then it is possible to devise evacuation plans and messages, particularly in the event of a fire. Finally, survivors often suffer PTSD and this is illustrated by the Herald of Free Enterprise catastrophe.

Theory:

- Definitions of catastrophe, explanations of behaviour in emergencies.
- Contagion (Le Bon, 1895).
- Script schemata (Schank and Abelson; Donald and Canter, 1992).
- Self categorisation theory (e.g. Drury, Cocking, Reicher).

Research: Laboratory simulations and real life events (Mintz, 1951; Kugihara, 2001), Air: Manchester (1985). Shipping: Herald of Free Enterprise (1997). Fires: Chicago (1903), Kings Cross (1987).

Key study: Drury, J, Cocking, C and Reicher, S, Everyone for themselves? A comparative study of crowd solidarity among emergency survivors. *British Journal of Social Psychology* (2008), 00, 1–21 Full article: <http://onlinelibrary.wiley.com/doi/10.1348/014466608X357893/full>

Applications:

- Preventing catastrophe: evacuation from fires (Proulx, 2001) and devising evacuation messages (Loftus, 1979).
- Supporting victims of catastrophe: treating PTSD (Hodgkinson and Stewart, 1991).

Behaviour of crowds

Overview: People in crowds behave in very strange ways: they stampede to acquire goods, they bait people to jump off bridges and they will perform extreme behaviour when they are deindividuated. Three main explanations of emergent norm, social identity theory and deindividuation are considered along with supporting studies. Many issues are raised by the laboratory, field and real life studies. Finally, how to control aggressive crowds is considered along with reducing deindividuation through the increase in individuation through the use of CCTV.

Theory:

- Definitions of crowds.
- Types of crowd (Brown, 1965: acquisitive, baiting (Mann, 1981), panicky, apathetic, peaceful).
- Explanations of crowd behaviour: Emergent norm (Turner, 1972) Deindividuation (Zimbardo, 1969) Social identity theory (Reicher, 1984).

Research: Studies on individuation and deindividuation: laboratory (e.g. Zimbardo, 1969) and field studies (Diener et al., 1976). Johnson and Downing (1979) Social identity theory (Reicher 1984b St Pauls riots).

Key study: Diener, E, Fraser, S C, Beaman, A L and Kelem, R T (1976) Effects of deindividuation variables on stealing among Halloween trick-or-treaters. *Journal of Personality and Social Psychology*, Volume 33, Issue 2, February 1976, Pages 178–183. Abstract: <http://psycnet.apa.org/psycinfo/1976-20842-001>

Applications:

- Controlling potentially aggressive crowds (e.g. Waddington, 1987).
- Individuating using CCTV (e.g. Ainsworth and Pease, 1987).

Crowding and density

Overview: Crowding is experienced by both people and animals. Animal studies have been done both in the laboratory and in the 'real world'. Human studies have looked at the effects on social behaviour and health. The key study looks at crowding in a public place, specifically how high social density affects commuters on a train. Finally, studies have been chosen to show how crowding can be prevented and how it can be reduced.

Theory:

- Definitions of density and crowding.
- Explanations: social overload, privacy regulation, the control perspective.
- Animal Studies: Dubos (1965), Christian (1960), Calhoun (1962).

Research: Crowding and social behaviour: Dukes and Jorgenson (1976). Crowding and performance: Mackintosh et al. (1975). Crowding and health: Lundberg (1976).

Key study: Evans, G W and Wener, R E (2007) Crowding and personal space invasion on the train: Please don't make me sit in the middle. *Journal of Environmental Psychology*. Volume 27, Issue 1, March 2007, 90–94. <http://daisyj0.tistory.com/attachment/pk0.pdf> or blog: <http://bps-research-digest.blogspot.com/2007/04/why-train-designers-should-avoid-three.html>

Applications:

- Crowding in public places (e.g. Evans and Werner, 2007).
- Preventing crowding from occurring (Langer and Saegert, 1977).
- Treating crowding (Karlin et al., 1979).

Personal space

Overview: How big is your bubble?! Following a consideration of aspects such as Halls' zones, and different types of space, a look at how space is measured follows. Personal space has been invaded in many situations including a mental institution, a public lavatory and when crossing the road. The applications look at the role of personal space in bullying and reducing crime at a cash (ATM) machine.

Theory:

- Definitions, types (alpha, beta, asymmetry), distances (Hall, 1963).
- Measures: simulation, stop-distance, questionnaire (Duke and Nowecki, 1972).
- Cultural differences (Little, 1968).

Research: Personal space invasions: Felipe and Sommer (1966); Middlemist et al., (1976); Smith and Knowles (1978).

Key study: Smith, R J and Knowles, E S (1978) Attributional Consequences of Personal Space Invasions. *Personality and Social Psychology Bulletin*, Vol. 4, No. 3, 429–433.
Abstract: <http://psp.sagepub.com/cgi/content/abstract/4/3/429>

Applications: Reducing crime at an ATM (cash machine) Home Office (2007).

Environmental cognition

Overview: Environmental cognition includes the mental images we have of the world around us. An immediate problem is how we transfer a mental image onto paper and the Lynch and Moar studies attempt this. People also make errors when they draw maps. Animals have cognitive maps too. To successfully navigate people need appropriate maps; but how do they do it? One study looks at taxi drivers following a London route and the Aginsky study uses a driving simulator to study the wayfinding process.

Theory:

- Definitions, measures, sketch maps (Lynch, 1960).
- Estimating distances (Moar, 1976).
- Errors in cognitive maps.

Research: Human sex differences in wayfinding (Malinowski, 2001), recalling routes (Maguire et al., 1997).

Key study: Aginsky, V, Harris, C, Rensink, R and Beusmans, J (1997) Two Strategies for Learning a Route in a Driving Simulator. *Journal of Environmental Psychology*, 17, 317–331.
Full text: www.psych.ubc.ca/~rensink/publications/download/navigation-97.pdf

Applications:

- Designing better maps (Levine's 1982 you are here maps).
- Adult map acquisition (Aginsky et al., 1997).

Noise

Overview: Noise is unwanted sound, but music is often wanted sound. Definitions of noise are important and the first consideration is with transport noise and the studies by Bronzaft and Evans. Next are the studies on the negative effects of noise on the social behaviours of aggression and helping. Finally the effects of music are considered in relation to health, performance and consumer behaviour.

Theory:

- Definitions of noise (annoyance factors and individual differences), e.g. Kryter.
- Transportation noise and children (Bronzaft, 1975); (Evans and Maxwell, 1997).

Research: Negative effects of noise on aggression (Donnerstein and Wilson, 1976) and helping (Matthews and Cannon, field study 1975). Perceived control of noise (Sherrod and Downs, 1974).

Key study: North, A C, Shilcock, A and Hargreaves, D J (2003) The Effect of Musical Style on Restaurant Customers' Spending. *Environment and Behavior*, 35, 712.

Abstract: <http://eab.sagepub.com/cgi/content/abstract/35/5/712>

Applications:

Positive benefits of music:

- on health (Chafin 2004)
- on performance (the Mozart effect) and
- on consumer behaviour (North et al., 2003).

Psychology and Health

Doctor-patient relationship

Overview: Any interaction between a doctor and a patient should be a satisfying one but many factors affect this, such as the way a doctor is dressed. The classic McKinstry study is key and the article includes the actual pictures that were used. Also crucial is style and whether instructions are clearly presented or not. How doctors inform people of decisions is considered too, as is the extent to which patients reveal their symptoms. Finally, people may misuse health services in a number of ways, and those suffering from Munchausen syndrome for example are fascinating.

Theory:

Doctor-patient interactions:

- Non-verbal communication (McKinstry and Wang, 1991).
- Verbal communication (Ley, 1989).
- Communication styles (Savage and Armstrong, 1991).

Research: Doctor decision-making: Judgements of risk (Marteau, 1990), patient disclosure of symptoms (Robinson and West, 1992).

Key study: McKinstry, B and Wang, J X (1991) Putting on the style: what patients think of the way their doctor dresses. *British Journal of General Practice*, 1991 July, 41(348), 270, 275–8.

Full text: www.ncbi.nlm.nih.gov/pmc/articles/PMC1371685/

Applications: Using-misusing health services: Munchausen syndrome (Aleem and Ajarim, 1995). Hypochondriasis (Barlow and Durand, 1995).

Adherence to medical requests

Overview: Some people do not take their medicine. But how widespread is this problem? The Barat et al. study answers this question, whilst the Bulpitt study looks at one reason why people do not take medication. Adherence can be measured in various ways and various measures such as the 'track-cap' are considered in the research section. Finally, how can people be encouraged to take medication? Providing instructions for practitioners is one option, detailed in the Carr study, and several behavioural strategies also need to be considered. The key study is a meta-analysis of non-adherence studies based around the health belief model.

Theory:

- Definitions of adherence.
- Extent of non-adherence (Barat, 2001) and reasons for non-adherence: e.g. rational non-adherence (Bulpitt, 1988).
- Theory of reasoned action (Fishbein and Ajzen, 1975) and the health belief model (Becker & Rosenstock, 1975).

Research: Measuring non-adherence: pill devices (Chung and Naya, 2000). Prescription refill (Sherman, 2000).

Key study: DiMatteo, M R, Haskard, K B and Williams, S L (2007), Health Beliefs, Disease Severity, and Patient Adherence: A Meta-Analysis. *Medical Care*, Volume 45, Number 6, 2007. Full text: <http://www.jstor.org/stable/pdf/40221467.pdf?acceptTC=true>

Applications

- Improving adherence: Instructions for practitioners (Carr, 1990).
- Behavioural strategies (DiMatteo and DiNicola, 1982).

Pain

Overview: There are different types of pain and they can be measured in very different ways. There can be a subjective clinical interview, administration of a psychometric test, use of visual rating scales, the objective observation of pain behaviour by medical staff and pain can even be measured in a laboratory. Managing pain is essential and this can be done with various forms of medication but it can also be done psychologically. Finally, there are issues surrounding pain, such as patient controlled analgesia, the role of placebos and children and pain.

Theory:

- Types of pain (acute and chronic).
- Measuring pain (psychometric, e.g. MPQ, visual rating scales, observation, e.g. UAB). Pain in a laboratory (cold-pressor procedure).

Research: Patient controlled analgesia (Citron et al., 1986), placebos and pain (Levine et al., 1979).

Key study: Simons, S H P, van Dijk, M, Anand, K S, Roofthoof, D, van Lingen, R A and Tibboel, D (2003) Do we still hurt newborn babies: A prospective study of procedural pain and analgesia in neonates. *Archives of Pediatrics and Adolescent Medicine*, 2003 – American Medical Association, Vol. 157. Full text: <http://archpedi.ama-assn.org/cgi/reprint/157/11/1058.pdf>

Applications:

- Pain management techniques: medical, behavioural (e.g. biofeedback), cognitive (e.g. redefinition and imagery).
- Pain and children (Simons et al., 2003).

Substances

Overview: There are many substances which people use, misuse and abuse. One such substance is tobacco and why so many people still smoke is a burning question for health psychologists. There are various theories as to why people smoke, such as the nicotine regulation model, with evidence on why people start to smoke and why they continue. The key study is a longitudinal school intervention programme done in the UK and involving John Cleese. Other strategies such as nicotine replacement and behavioural strategies are prominent for those who wish to quit.

Theory:

- Definitions: physical and psychological dependence, addiction.
- The nicotine regulation model; Freudian oral fixation.
- Why people smoke: reasons (e.g. Leventhal and Cleary, 1980).
- Why people continue to smoke: reasons (e.g. Tomkins, 1966).

Research: Optimistic bias in smokers. Schoenbaum (1997).

Key study: McVey, D and Stapleton, J (2000) Can anti-smoking television advertising affect smoking behaviour? Controlled trial of the Health Education Authority for England's anti-smoking TV campaign. Tobacco Control 2000, British Medical Journal, 9, 273–282.

Abstract: <http://tobaccocontrol.bmj.com/cgi/content/abstract/9/3/273>

Applications:

- Preventing smoking: community-wide strategies (McVey and Stapleton, 2000).
- Quitting smoking: nicotine replacement therapy. Behavioural strategies: rapid smoking; self management strategies.

Health promotion

Overview: Two strategies to promote health are to provide people with information (so it reduces risk of relapse as in the Lewin study) and to arouse fear in them in some way which raises debates about how much fear should be created. Health can be promoted in many places, but worksites, schools and communities are the three places most often targeted. Health (and safety) can be promoted at work and one strategy was used successfully by Fox et al. The key study looks at an effective way to improve the diets of children in UK schools.

Theory:

- Ways to promote health: fear appeals (Leventhal et al., 1967; Thornton et al., 2000).
- Providing information (Lewin et al., 1992, 2006; Petrie et al., 2007).

Research: Health promotion programmes: Worksite (Gomel et al., 1993), School (Walter et al., 1985), Community (Cowpe, 1989).

Key study: Tapper, K, Horne, P J and Lowe, C F (2003) The Food Dudes to the Rescue. The Psychologist, January 2003, Vol. 16, No. 1.

Full text: <http://thepsychologist.bps.org.uk/volume-16/edition-1/food-dudes-rescue>

Applications: Diet of children (Tapper et al., 2003).

Stress

Overview: Everyone suffers from stress whether it be from a life event, daily hassle or we may just have the type of personality that causes stress. Such causes of stress can be measured psychologically and we can also measure stress physiologically too. The effect stress has on health is significant and worth consideration. Stress management is crucial and one way is revealed in the key study, whilst another approach looks at one way in which stress could be prevented.

Theory: Definitions of stress. Physiology of stress. The GAS (Selye, 1956). The effect of stress on health.

Research:

Stress measurement techniques:

- Physiological by blood pressure (Jamner, 1991).
- Psychological by questionnaire: (Holmes and Rahe, 1967; Friedman and Rosenman, 1974).

Key study: Bridge, L R, Benson, P, Pietroni, P C and Priest, R G (1988) Relaxation and imagery in the treatment of breast cancer. British Medical Journal, 1988 November 5, 297(6657), 1169–1172.
Full text: www.ncbi.nlm.nih.gov/pmc/articles/PMC1835041/

Applications:

- Managing stress: relaxation and imagery (Bridge et al., 1987).
- Preventing stress: stress inoculation training (Meichenbaum, 1985).

Psychology and Sport

Audience effects

Overview: When competent sports people perform, they do even better with an audience, and such effects have been observed for over 100 years. Why is this? Is it 'mere presence' or is it more complex? What about animals: does social facilitation apply to them? When in a group, individual performance may drop and individuals may 'social loaf'. The spectators themselves need studying because they contribute greatly to performance, particularly if they are 'at home'.

Theory:

Social facilitation and inhibition:

- Audience and co-action effects: Triplett (1898).
- Zajonc's 'mere presence' (1965).
- Cottrell's evaluation apprehension (1968).

Research:

- Social facilitation in animals (Zajonc et al., 1969).
- Social loafing in humans: Kerr and Brun (1981).

Key study: Waters, A and Lovell, G (2002) An Examination of the Homefield Advantage in a Professional English Soccer Team from a Psychological Standpoint. *Football Studies*, 5, 1, 46–59.

Full text: www.la84foundation.org/SportsLibrary/FootballStudies/2002/FS0501f.pdf

Applications: Home advantage: familiarity, referee bias, aggression, crowd size and noise.

Aggression

Overview: Sport is the only peacetime setting where we actively encourage and enjoy aggression. But what type of aggression is acceptable and how does it differ from assertiveness? A number of theories of aggression need to be considered along with situational factors. The crucial question is whether sport reduces aggression or whether it causes it, and whether certain sports cause more aggression in players and even spectators than others. The key study looks at the effects of aggression on alcohol consumption in rugby spectators.

Theory: Definitions of aggression. Hostile and instrumental aggression.

Assertiveness (e.g. Silva, 1980). Situational factors in aggression (e.g. Cox, 1994).

Theories of sport aggression: Instinct/psychoanalytic (Freud, 1950), frustration aggression (e.g. Berkowitz and LePage, 1967). Social Learning Theory (Bandura, 1973).

Research: Reducing aggression in sports: catharsis and learning theory (e.g. Wann et al., 1999).

Key study: Moore, S C, Shepherd, J P, Eden, S and Sivarajasingam, V (2007) The effect of rugby match outcome on spectator aggression and intention to drink alcohol. *Criminal Behaviour and Mental Health*, 17:118–127 (2007).

Full text: <http://onlinelibrary.wiley.com/doi/10.1002/cbm.647/pdf>

Applications: Aggression in spectators (Moore et al., 2007).

Motivation

Overview: What motivates a sportsperson? What motivates a sportsperson to win? Theories of motivation need to be considered along with how motivation can be measured. More specifically, what does a sportsperson believe the cause of his/her success or failure to be; will his/her attribution boost self confidence or will it lead to learned helplessness?

Theory:

- Intrinsic and extrinsic motivation (Deci, 1975).
- Achievement motivation (McClelland-Atkinson 1953).
- Competence motivation theory and PCSC (Harter, 1978, 1982).

Research: Attributions: (Weiner, 1972; McAuley, 1992).

Key study: McAuley, E, Duncan, T E and Russell, D W (1992) Measuring Causal Attributions: The Revised Causal Dimension Scale (CDSII). Personality and Social Psychology Bulletin, 1992; 18; 566.

Abstract: <http://psp.sagepub.com/cgi/content/abstract/18/5/566>

Applications:

- Self confidence (Vealey, 1986).
- Learned helplessness (Dweck, 1978).

Anxiety and sport performance

Overview: In order to perform to the best of their ability, a sportsperson needs some anxiety, but too much anxiety is not good. The three models chosen: catastrophe, optimal functioning and reversal, go beyond the traditional inverted U theory. The chosen key study examines Hanin's zone of optimal functioning more closely. Anxiety management needs to be considered and the chosen approach is that by Suinn.

Theory:

- The catastrophe model (Fazey and Hardy, 1988).
- Zones of optimal functioning (Hanin, 1968).
- Reversal theory (Apter, 1982).

Research: Competition anxiety (Martens, 1977). Measures of competition anxiety: SCAT and CSAI-2 (Martens, 1977, 1990).

Key study: Davis, J E and Cox, R H (2002) Interpreting Direction of Anxiety Within Hanin's Individual Zone of Optimal Functioning. Journal of Applied Sport Psychology, 14, 43–52.

Full text: <http://psicdesp.no.sapo.pt/ans/4.pdf>

Applications: Anxiety management: Suinn's VMBR (Suinn, 1972).

Personality

Overview: There are many theories of personality, but how many apply specifically to sport? Relevant theories will be considered, followed in the research section with research to support the theories. In the application section a 'narrow-band' aspect of personality will be looked at; that of sensation seeking, which is developed through the key study by Kajtna, which looks at sensation-seeking and high-risk sports.

Theory:

Personality theories:

- Trait theories: Eysenck (1975), Cattell (1965).
- Five factor model (Costa and McCrae, 1985).

Research:

Measurement of Personality:

- 16pf (Cattell, 1967).
- NEO-PI (Costa and McCrae, 1985).
- EPQ (Eysenck, 1986).

Key study: Kajtna, T, Tusak, M, Baric, R and Burnik, S (2004) Personality in high risk sports athletes. *Kinesiology*, 36(1) 24–34.

Full text: https://www.researchgate.net/publication/232575554_Personality_in_high_risk_sports_athletes

Applications: Sensation-seeking and sport: Zuckerman (1978), Kajtna et al. (2004).

Leadership and team cohesion

Overview: This section looks at three theories of leadership, followed with a look at cohesiveness of teams and factors that may influence cohesiveness. For the application, how cohesiveness develops is considered and then there is a look at how a coach can become more effective. The key study is a classic in its field looking at cohesion and coaction.

Theory:

- Fiedler's contingency model (1967).
- Chelladurai's multidimensional model of leadership (1978).
- Grusky (1963).

Research: Cohesiveness in sport: Carron's conceptual system (determinants and consequences) (1982), Widmeyer et al. (1985) Elements of Cohesion and Measures of it (GEQ).

Key study: Widmeyer, W N and Williams, J M (1991) Predicting Cohesion in a Coaching Sport. *Small Group Research*, 1991; 22; 548. Abstract: <http://sgr.sagepub.com/cgi/content/abstract/22/4/548>

Applications:

- Developing team cohesion (e.g. Cox, 1994).

- Coach behaviour/effectiveness (Smith et al., 1977, 1979).

Component 4 Personal Investigation

Assessment details

Requirements

- The work will be internally assessed by the teacher and externally moderated by Cambridge.
- The Psychology course ethical guidelines published in the Vade Mecum must be followed.
- Non-human animals must not be used for the Personal Investigation.
- The word count does not include supplementary information such as title page, tables, references and appendices.

Candidates are required to:

- Design, undertake, analyse and report one study of no more than 3000 words.
- Produce a report that must consist of:
 - title page
 - abstract
 - introduction
 - method: design, participants, materials, procedures, measures
 - results
 - discussion
 - references
 - appendices.

Choice of topic

Candidates should choose their own topic, but this must be with the teacher's guidance. For various reasons (ethical, socially sensitive) not all topics are suitable for candidates at this level. However, the topic should be one that seems interesting and worthwhile to the candidate.

Proposals for areas of study are submitted to Cambridge for approval in advance using the Outline Proposal Form. Centres should submit Outline Proposal Forms for all candidates as this will assist each candidate with their direction of study. Proposals should be not more than 500 words, describing the proposed area of study, title and, where appropriate, list of source material to be consulted.

An Outline Proposal Form is submitted by the Centre to Cambridge after it has been completed by the candidate. Further details can be found in the *Cambridge Handbook (UK)*.

Candidates must adhere to the Psychology course ethical guidelines published in the Vade Mecum when undertaking any study. They must show tact and sensitivity, respect, confidentiality, and acknowledge all sources used.

Plagiarism is 'the deliberate and substantial unacknowledged incorporation in a student's work of material derived from the work (published or unpublished) of another'. This includes material from books, journals, the web, or other candidates. Plagiarism is serious and will be dealt with according to Cambridge procedures for malpractice.

The Report

Candidates are encouraged to structure their report as follows:

Title page

- Title
- Centre and candidate name and number
- Date, month and year of submission

Abstract

- Summary of aims
- Summary of methods
- Summary of results
- Conclusion

Introduction

- Research question
- Literature review
- Hypotheses

Method

- Design:
Type and justification, description of variables, control of extraneous variables
- Participants:
Target population, sampling technique, relevant participant details
- Apparatus:
List of materials used, reference to copies in appendices
- Procedure:
Itemised to allow full replication, ethical issues, standardised instructions
- Data analysis
Descriptive statistics, visual display, application of inferential statistics¹ including justification

Results

- Presentation of descriptive statistics
- Presentation of inferential statistics including statements of significance
- Conclusion in relation to hypotheses

¹ The statistical test should be appropriate to the data and be either parametric or non-parametric; two-sample or K-sample or trend test.

Discussion

- Explanation of results
- Evaluation of methodology
- Relationship to literature review in the introduction
- Suggestions for improvement
- Suggestions for further research

References

- Works cited within the report²

Appendices

- Supplementary information
- One copy of materials used
- Copy of standardised instructions and debriefing notes
- Statistical calculations
- Informed consent form

Words

- 3000

Marks

- 60

At the time of submission, the candidate is required to sign a declaration that the Personal Investigation/ Coursework is their own work and the teacher countersigns to confirm they believe the work is that of the candidate. Centres should use the Pre U Cover Sheet for this purpose. Further details can be found in the Cambridge Handbook (UK).

2 Reference should be presented in standard format:

Books

Coolican, H (1995) Introduction to Research Methods and Statistics in Psychology. London: Hodder Headline Educational. ISBN 0340627360

Milgram, S (1963) cited in Gross, R (1996) Psychology: The Science of Mind and Behaviour, 3rd Edition. London: Hodder Arnold H&S. ISBN 0340647620

Journal articles

Carr, P and Johnson, T (1990) The influence of the Eurovision Song Contest on dispositional attributions: Sing Little Birdie Sing. *The British Journal of Psychology*, 42, 354-367

Internet (cite full web address) Haines, M M, Stansfeld, S A, Head, J and Job, R F S, Multilevel modelling of aircraft noise on performance tests in schools around Heathrow Airport London <http://jech.bmj.com/cgi/content/abstract/56/2/139>

Using the internal assessment criteria

Teachers should judge the internally assessed work against the criteria using the mark descriptors.

- For each assessment criterion there are mark descriptors that concentrate on positive achievement.
- The aim is to find, for each criterion, the descriptor that conveys most accurately the level attained by the candidate's work, using the best-fit model.
- When assessing a candidate's work, teachers should read the descriptors for each criterion until they reach a descriptor that most appropriately describes the level of the work being assessed. If a piece of work seems to fall between two descriptors, both descriptors should be read again and the one that more appropriately describes the candidate's work should be chosen.
- Where there are two or more marks available within a mark band, teachers should award the upper marks if the candidate's work demonstrates most or all of the qualities described. Teachers should award the lower marks if the candidate's work demonstrates some of the qualities described.
- Only whole numbers should be recorded: partial marks, fractions and decimals are not acceptable.
- Teachers should not think in terms of a pass or fail boundary or grades but should concentrate on identifying the appropriate descriptor for each assessment criterion.
- The highest descriptors do not imply faultless performance but should be achievable by a candidate. Teachers should not hesitate to use the extremes if they are appropriate descriptions of the work being assessed.
- A candidate who attains a high level of achievement in relation to one criterion will not necessarily attain high levels of achievement in relation to the others, and vice versa. Teachers should not assume that the overall assessment of the candidates will produce any particular distribution of scores.
- It is recommended that the assessment criterion and the mark descriptors be available to candidates at all times.

Additional information

Equality and inclusion

This syllabus complies with our *Code of Practice* and *Ofqual General Conditions of Recognition*.

Cambridge has taken great care in the preparation of this syllabus and related assessment materials to avoid bias of any kind. To comply with the UK Equality Act (2010), Cambridge has designed this qualification with the aim of avoiding direct and indirect discrimination.

The standard assessment arrangements may present unnecessary barriers for candidates with disabilities or learning difficulties. Arrangements can be put in place for these candidates to enable them to access the assessments and receive recognition of their attainment. Access arrangements will not be agreed if they give candidates an unfair advantage over others or if they compromise the standards being assessed. Candidates who are unable to access the assessment of any component may be eligible to receive an award based on the parts of the assessment they have taken. Information on access arrangements is found in the *Cambridge Handbook (UK)*, for the relevant year, which can be downloaded from the website www.cie.org.uk/examsOfficers

Guided learning hours

Cambridge Pre-U syllabuses are designed on the assumption that learners have around 380 guided learning hours per Principal Subject over the duration of the course, but this is for guidance only. The number of hours may vary according to curricular practice and the learners' prior experience of the subject.

Total qualification time

This syllabus has been designed assuming that the total qualification time per subject will include both guided learning and independent learning activities. The estimated number of guided learning hours for this syllabus is 380 hours over the duration of the course. The total qualification time for this syllabus has been estimated to be approximately 500 hours per subject over the duration of the course. These values are guidance only. The number of hours required to gain the qualification may vary according to local curricular practice and the learners' prior experience of the subject.

If you are not yet a Cambridge school

Learn about the benefits of becoming a Cambridge school at www.cie.org.uk/startcambridge. Email us at info@cie.org.uk to find out how your organisation can register to become a Cambridge school.

Language

This syllabus and the associated assessment materials are available in English only.

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