

INTRODUCTION

This book is for teachers and students, and is structured to help you use effectively examples of the wealth of psychological research that is relevant to the IB Diploma Psychology syllabus. It is not a prescriptive list: these are just recommendations based on the knowledge of two highly experienced IB Diploma Psychology teachers, who are aware how teachers and students struggle to find, understand and summarise original research so it may be used to answer questions. The IB always takes the approach that any relevant research is acceptable, but this freedom also leads to anxiety regarding which to choose as 'most relevant' and how to not become swamped by all the research that is available.

Ask any teacher what is their most precious resource, and the answer will be 'time'. There is never enough, and finding original articles and making key study summaries from them takes hours. For new psychology teachers there is the added uncertainty of relevance: are these the ones I should be using? Students whose first language is not English may struggle to understand the originals and be unable to summarise them for themselves, let alone apply them effectively to support their arguments.

It has been presumed by some that to produce a list of studies that others have used successfully over the years in their psychology courses is somehow to be unnecessarily restrictive. On the contrary, it releases teachers' time for creative use of these resources; it also, with the inclusion of key ideas and critical thinking points, encourages students to look at the background to the theories and explore the philosophical differences between the different approaches.

HOW TO USE THIS BOOK

Section 1 is a structured layout of topics, content and author-recommended studies, in a table format. Use the tables to identify studies that are relevant to the approaches and, where possible, also to your option(s), and use them to structure learning. This 'crossover' approach reduces the content and allows it to be used to meet different learning outcomes. The studies are split into *classic*, *critique/extension* and *recent* categories, to give a feel for how thinking is debated and has progressed on the key issues. You do not have to use all of the studies recommended; you can dip in and out as you please.

Section 2 has key study summaries of every classic and critique/extension study in the Section 1 tables, organised by their main content use and links to other areas. Summaries of the modern studies will be published separately in the future, as they are optional. The reference list includes all key studies. This allows for advance curriculum planning that exploits the overlaps between the core approaches and the options. Each study is summarised clearly, with the aim of the study, participants, procedure, results and conclusion, reducing teacher workload considerably. In order to develop student understanding of the key ideas, the background to the study, evaluation of the study and an example of critical thinking are also given. Again, the evaluation and critical thinking is only an example, and students should also be encouraged to develop their own.

When planning a topic, look at the content areas and the recommended studies, check the relevance to your option(s) and use what suits you best. For example, if you are studying Abnormal Psychology and Human Relationships options together with your class, then in the first table below, you will be reminded to use Fisher et al. and Linden's research when teaching this biological approach content.

BIOLOGICAL APPROACH

Topic 1: The brain and behaviour

Key Idea: There is a correlation between brain structure/activity and human behaviour. A change in one will lead us to expect a change in the other.

| Content | Research | Use in Biological Approach | Links to |
|--|---|---|---|
| Techniques used to study the brain in relation to behaviour. | Classic Fisher et al. (2005) – fMRI Maguire (2000) – MRI scan. (Also see localization and neuroplasticity). | Draw out the differences between the MRI scans of brain structure and the fMRI scans of brain activity. | Human Relationships: Fisher et al. used fMRI scanning in a small-scale study to investigate brain regions associated with ‘being in love’. |
| | Critique/Extension Bennett and Miller (2010) – investigation into reliability of fMRI findings | Challenges of reliable fMRI scanning and amount of ‘false positives’. Interpretation of scans takes experience and skill. | |
| | Recent Thomas & Baker (2012) challenges results of MRI studies of training-dependent neuroplasticity. | Use of MRI in training-dependent neuroplasticity research has some problems based mainly on specificity of task, replicability and robustness of design and statistics. | |

Further resources

BBC Radio Discovery series (2007). Interesting summary of brain scanning and ethics of its use.
<http://www.bbc.co.uk/programmes/b007mhxl>

Guardian article on fMRI decoded neural feedback as treatment for phobias and PTSD. ‘Tests raise hopes for radical new therapy for phobias and PTSD.’
<https://www.theguardian.com/science/2016/nov/21/tests-raise-hopes-for-radical-new-therapy-for-phobias-and-ptsd>

TED talk by Mehdi Ordikhani-Seyedlar (2017). ‘What happens in your brain when you pay attention?’
https://www.ted.com/talks/mehdi_ordikhani_seyedlar_what_happens_in_your_brain_when_you_pay_attention

BIOLOGICAL APPROACH

Topic 1: The brain and behaviour

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| Localization | Classic Maguire (2000) – also see techniques used to study the brain and neuroplasticity. | Correlation between spatial memory (learning of routes) and size of the posterior right hippocampus suggests localization of this function. | |
| | Critique/Extension Tremblay, Dick & Small (2013) | Language function is distributed in the brain. Contradicts the theories of Broca and Wernicke that language comprehension and production are localized in two designated areas of the brain. Therefore contradicts theory of localization. Theory of distribution of function can be traced back to Lashley (1930). The modern Human Connectome Project (2010) is based on this theory. | |
| | Recent Schmaal et al. (2015) – correlation between changes in hippocampus and amygdala and major depressive disorder. | Suggests localization of MDD in limbic system, though does not rule out effects elsewhere in brain. | Abnormal Psychology: Huge meta-analysis of MRI data showed that MDD in some cases, but not all, is correlated with a decrease in size in the hippocampus and amygdala. |

Further resources (both of these are also relevant for neuroplasticity).

BBC Radio All in the Mind series (2017). ‘Adolescent brain.’

<http://www.bbc.co.uk/programmes/b0832fq5>

TED talk by Sarah-Jayne Blakemore (2012). ‘The mysterious workings of the adolescent brain.’

https://www.ted.com/talks/sarah_jayne_blakemore_the_mysterious_workings_of_the_adolescent_brain