**A2 Research Methods Checklist**

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| **What you need to know:** | Red | Amber | Green |
| ***Application of scientific method*** |  |  |  |
| Features of science: reliability |  |  |  |
| Features of science: objectivity |  |  |  |
| Scientific process: theory construction |  |  |  |
| Scientific process: hypothesis testing |  |  |  |
| Scientific process: use of empirical methods |  |  |  |
| Scientific process: generation of laws/principles |  |  |  |
| Validating new knowledge/peer review |  |  |  |
| ***Designing psychological investigations*** |  |  |  |
| Operationalising of variables **(AS)** |  |  |  |
| Experiment (what is it/Adv/Dis) **(AS)** |  |  |  |
| Natural Experiment (what is it/Adv/Dis) **(AS)** |  |  |  |
| Field Experiment (what is it/Adv/Dis) **(AS)** |  |  |  |
| Quasi Experiment |  |  |  |
| Case study (what is it/Adv/Dis) **(AS)** |  |  |  |
| Naturalistic Observation (what is it/Adv/Dis) **(AS)** |  |  |  |
| Content Analysis (what is it/Adv/Dis) **(AS)** |  |  |  |
| Self-report Techniques (interview/Q’naire) **(AS)** |  |  |  |
| Correlation (what is it/Adv/Dis) **(AS)** |  |  |  |
| Demand Characteristics **(AS)** |  |  |  |
| Investigator Effects **(AS)** |  |  |  |
| Order Effects **(AS)** |  |  |  |
| Experimental Design – Repeated Measures **(AS)** |  |  |  |
| Experimental Design – Matched Pairs **(AS)** |  |  |  |
| Experimental Design – Independent Groups **(AS)** |  |  |  |
| Opportunity Sampling **(AS)** |  |  |  |
| Random Sampling **(AS)** |  |  |  |
| Volunteer/Self-selected Sampling **(AS)** |  |  |  |
| Reliability (Observer & Test) **(AS)** |  |  |  |
| Validity (Internal, External = Eco. & Pop.) **(AS)** |  |  |  |
| Ethical considerations/issues of experiments **(AS)** |  |  |  |
| ***Data analysis and reporting*** |  |  |  |
| Graphs - Bar chart, histogram, Freq. Polygon **(AS)** |  |  |  |
| Tables **(AS)** |  |  |  |
| Measures of central tendency **(AS)** |  |  |  |
| Measures of dispersion (inc. Standard Deviation) **(AS)** |  |  |  |
| Nominal, ordinal & interval data |  |  |  |
| Probability & type 1 & type 2 errors |  |  |  |
| Inferential Stats (when use?): chi square |  |  |  |
| Inferential Stats (when use?): Spearman’s Rho |  |  |  |
| Inferential Stats (when use?): Wilcoxon Signed Ranks |  |  |  |
| Inferential Stats (when use?): Mann-Whitney U |  |  |  |
| Structure of a report |  |  |  |

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|  **Student checklist for Addiction (PSYA4)** |
|  | **Sub-sections** | **Red** | **Amber** | **Green** |
| **Models of addictive behaviour & explanations of specific addictions** | The genetics of addiction in terms of initiation, maintenance & relapse |  |  |  |
| The disease model of addiction in terms of initiation, maintenance & relapse |  |  |  |
| The self-medication model of addiction in terms of initiation, maintenance & relapse |  |  |  |
| Expectancy theory and addiction in terms of initiation, maintenance & relapse |  |  |  |
| Operant condition & addiction in terms of initiation, maintenance & relapse |  |  |  |
| Social Learning Theory & addiction in terms of initiation, maintenance & relapse |  |  |  |
| Explanations of smoking addiction |  |  |  |
| Explanations of gambling addiction |  |  |  |
| **Factors affecting addictive behaviour** | Vulnerability to addiction |  |  |  |
| The role of the media in addictions |  |  |  |
| **Reducing addictive behaviour** | Models of prevention: Theory of Reasoned Action |  |  |  |
| Models of prevention: Theory of Planned Behaviour |  |  |  |
| Biological interventions |  |  |  |
| Psychological interventions |  |  |  |
| Public health interventions |  |  |  |
| legislation |  |  |  |

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|  **Student checklist for Aggression (PSYA3)** |
|  | **Sub-sections** | **Red** | **Amber** | **Green** |
| **Social Psychological explanations of aggression** | Social Learning Theory & aggression |  |  |  |
| Deindividuation & aggression |  |  |  |
| Institutional aggression (between & within groups) |  |  |  |
| **Biological explanations of aggression** | Neural mechanisms in aggression |  |  |  |
| Hormonal mechanisms in aggression |  |  |  |
| Genetic factors in aggression |  |  |  |
| **Aggression as an adaptive response** | Evolutionary explanations of aggression (infidelity & homicide) |  |  |  |
| Group displays of aggression (lynch mobs, religious rituals, sports events) |  |  |  |

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|  **Student checklist for Relationships (PSYA3)** |
|  | **Sub-sections** | **Red** | **Amber** | **Green** |
| **Formation, maintenance & breakdown of relationships** | (Formation) Reward / need satisfaction theory  |  |  |  |
| (Formation) Similarity  |  |  |  |
| (Maintenance) Social Exchange Theory |  |  |  |
| (Maintenance) Equity Theory |  |  |  |
| Model of relationship breakdown (Rollie & Duck) |  |  |  |
| Reasons for breakdown |  |  |  |
| **Human reproductive behaviour** | Sexual selection and reproductive behaviour |  |  |  |
| Parental investment |  |  |  |
| **Effects of early experience & culture on adult relationships** | The influences of childhood & adolescent experiences on adult relationships |  |  |  |
| Cultural differences in relationships |  |  |  |

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|  **Student checklist for Schizophrenia (PSYA4)** |
|  | **Sub-sections** | **Red** | **Amber** | **Green** |
| **Symptoms of schizophrenia, its diagnosis, and explanations of the disorder** | The clinical characteristics (symptoms) of schizophrenia |  |  |  |
| The diagnosis and classification of schizophrenia |  |  |  |
| The issues of reliability & validity in relation to the diagnosis of schizophrenia |  |  |  |
| The role of genetic factors in schizophrenia |  |  |  |
| The role of biochemical factors in schizophrenia |  |  |  |
| One psychological theory of schizophrenia (from behavioural, cognitive, psychodynamic and socio-cultural) |  |  |  |
| A second psychological theory of schizophrenia (from behavioural, cognitive, psychodynamic and socio-cultural) |  |  |  |
| **Therapies for schizophrenia** | Drug therapy for schizophrenia, inc. evaluation in terms of its effectiveness & appropriateness |  |  |  |
| Electro-convulsive therapy (ECT) for schizophrenia, inc. evaluation in terms of its effectiveness & appropriateness |  |  |  |
| One psychological therapy for schizophrenia, inc. evaluation in terms of its effectiveness & appropriateness |  |  |  |
| A second psychological therapy for schizophrenia, inc. evaluation in terms of its effectiveness & appropriateness |  |  |  |

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|  **Student checklist for Biorhythms & Sleep (PSYA3)** |
|  | **Sub-sections** | **Red** | **Amber** | **Green** |
| **Biological rhythms** | Circadian, infradian and ultradian rhythms inc. studies |  |  |  |
| Endogenous pacemakers |  |  |  |
| Exogenous zeitgebers |  |  |  |
| Biorhythm disruption (jet & shift lag) |  |  |  |
| **Sleep states and sleep functions** | The nature of sleep & lifespan changes in sleep |  |  |  |
| Function of sleep: Restoration theory, inc. studies of sleep deprivation |  |  |  |
| Function of sleep: Evolutionary explanations (ecological) of sleep |  |  |  |
| **Sleep disorders** | Insomnia  |  |  |  |
| Narcolepsy |  |  |  |
| Sleep walking |  |  |  |