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| --- | --- | --- |
| **Research Method** | **Validity (true)** | **Reliability (consistency)** |
| Experimental:**laboratory** | * Has high internal validity due to the level of control an experimenter has. This means that extraneous variables can be controlled for.
* Demand characteristics and investigator effects (Greenspoon) can lead participants to act in an unnatural way
* The tasks and situation can lack mundane realism, meaning low ecological validity
* A double blind method can increase the internal validity of the study
 | * The standardised procedure and strict controls allow the study to be easily replicated.
* As these studies are easily replicable, the reliability of procedures can be established by using the test-retest method
 |
| Experimental:**field** | * Can have higher ecological validity due to the natural setting
* If participants are aware of being in a study, they may experience demand characteristics
* Extraneous variables are more of an issue, reducing the internal validity
* A double blind method can increase the internal validity of the study
 | * Due to the natural setting, internal reliability is reduced as the experimenter loses some control over the environment.
* Often this experiment is difficult to repeat, and as such will lack external reliability
 |
| Experimental: **natural/quasi** | * As the experimenter cannot completely control the independent variable, there may be extraneous variables that affect the DV results.
* Demand characteristics and investigator effects can lead participants to act in an unnatural way
* A double blind method can increase the internal validity of the study
 | * Because the variables are not completely under the control of the experimenter, there can be issues with replicating the study
* Standardised procedures can allow for some degree of replicability
 |
| Non experimental: **case study** | * As many different research methods are used, a variety of methods need to be used to establish the validity of the data
* The qualitative method of data collection means that information tends to be valid. However, it is susceptible to subjective interpretation
* It can be difficult to generalise due to the small sample size (population validity)
 | * As it is by definition a unique case, it can be almost impossible to establish reliability.
* If the study used other methods such as observations or interviews, inter rater reliability can be used
 |
| Non experimental: **correlational analysis** | * As this type of study often depends upon using questionnaires or taking measurements, the validity is only as good as the methods used: e.g. a questionnaire may lack internal validity as it does not actually measure what it claims to measure
* It may lack population validity as the sample may not be representative
 | * Standardised data collection methods can be used, meaning that the study can be replicated
* However, the study is only as reliable as the methods used to gain measurements of the two variables being investigated
 |
| Non experimental: **interviews** | * Semi structured or unstructured interviews which allow individuals to answer freely can give more valid results than closed questions, which could force participants to give answers that may not reflect their true thoughts and feelings.
* The interview questions may not actually be measuring what they mean to (construct validity)
 | * The split-half technique can be used to establish internal reliability
* External reliability can be established by using the test-retest method
* Semi structured interviews can be nearly impossible to replicate, as each one will be unique
* Structured interviews can be easier to replicate
 |
| Non experimental: **questionnaires** | * Open questions which allow individuals to answer freely can give more valid results than closed questions, which could force participants to give answers that may not reflect their true thoughts and feelings
* The questions may not actually be measuring what they mean to (content validity)
* Validity can be established by comparing results on a new test with a previously established test on the same topic (concurrent validity)
 | * The split-half technique can be used to establish internal reliability
* External reliability can be established by using the test-retest method
* Easy to replicate if using closed questions.
* Can be difficult to replicate if open questions are used
 |
| Non experimental: **observations** | * If the coding system or behaviour checklist in a structured observation is flawed, it will lack internal validity
* Investigator bias can be a big issue for internal validity as what people observe is influenced by their expectations.
* Naturalistic observations tend to have higher external validity
 | * Natural observations can be almost impossible to replicate as the experimenter has little control over the environment
* Inter-rater reliability can be used
 |
| Non experimental: **content analysis** | * This has high external validity because the analysis is carried out on things that people do or produce.
* There can be issues with observer bias
* A double blind method can increase the internal and external validity of the study
* The coding units may be flawed, lowering the internal validity
 | * The coders may interpret the same data differently
* However, inter-rater reliability can be used
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|  | Generally, how is the research done for this topic? | Methodological Issue #1 | Methodological Issue #2 | Methodological Issue #3 |
| January = Child #1 |  |  |  |  |
| February = Child #2 |  |  |  |  |
| March = Child # 3 |  |  |  |  |
| April = Child # 4 |  |  |  |  |
| May = Child # 5 |  |  |  |  |
| June = Child # 6 |  |  |  |  |
| July = Crime # 1 |  |  |  |  |
| August Crime # 2 |  |  |  |  |
| September Crime # 3 |  |  |  |  |
| October = Crime # 4 |  |  |  |  |
| November = Crime # 5 |  |  |  |  |
| December = Crime # 6 |  |  |  |  |

General Research Methods for Paper 3 Options: Child and Crime

Child topic 1. Intelligence (Biological) = Self-reports, family (case) studies, correlations

Child topic 2. Pre-adult brain development (Biological) = Brain scans, post-mortems

Child topic 3. Perceptual development (Cognitive) = lab experiments, animal studies

Child topic 4. Cognitive development & education (Cognitive) =lab experiments / controlled observations

Child topic 5. Development of Attachment (Social) = lab experiments / controlled observations, correlations

Child topic 6. Impact of advertising on children (Social) = content analyses, case studies

Crime topic 1. What makes a criminal? (Biological) = Family and case studies, correlations, brain scans

Crime topic 2. The collection and processing of forensic evidence (Biological) = lab experiments, self-reports (for showing the motivational factors)

Crime topic 3. Collection of evidence (Cognitive) = Lab experiments, self-reports

Crime topic 4. Psychology and the courtroom (Cognitive) = Lab experiments (not legally allowed to ask jury, so natural experiments and self-reports cannot be done in real life)

Crime topic 5. Crime prevention (Social) = correlations, anecdotal self-reports

Crime topic 6. Effect of imprisonment (Social) = correlations on real prisoners, lab experiments like Zimbardo / Haney

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| --- | --- |
| Child topic 1. Intelligence (Biological) | Self-reports, family (case) studies, correlations |
| Child topic 2. Pre-adult brain development (Biological)  | Brain scans, post-mortems |
| Child topic 3. Perceptual development (Cognitive) | lab experiments, animal studies |
| Child topic 4. Cognitive development & education (Cognitive)  | lab experiments / controlled observations |
| Child topic 5. Development of Attachment (Social) | lab experiments / controlled observations, correlations |
| Child topic 6. Impact of advertising on children (Social) | content analyses, case studies |
|  |  |
| Crime topic 1. What makes a criminal? (Biological)  | Family and case studies, correlations, brain scans |
| Crime topic 2. The collection and processing of forensic evidence (Biological)  | lab experiments, self-reports (for showing the motivational factors) |
| Crime topic 3. Collection of evidence (Cognitive)  | Lab experiments, self-reports |
| Crime topic 4. Psychology and the courtroom (Cognitive)  | Lab experiments – not legally allowed to ask jury  |
| Crime topic 5. Crime prevention (Social)  | correlations, anecdotal self-reports |
| Crime topic 6. Effect of imprisonment (Social) | correlations on real prisoners, lab experiments like Zimbardo / Haney |

