

Cambridge AS & A Level · Psychology 9990 · Notes

Bandura et al. (aggression) AS

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What you need to know

Every AS core study is examined the same way. For Bandura et al. (1961), a laboratory experiment in which nursery children watched an adult either attack an inflatable Bobo doll or play quietly, and were then watched themselves, you should be able to:

1. **Explain the psychology being investigated: social learning theory and aggression.**
2. **Give the background:** what earlier research had already shown about children copying adults, and why this study looked at copying **after a delay**.
3. **State the aims** of the study.
4. **Describe the procedure and its methodology:** the research method (an experiment that collected its data by observation), the sample, how children were rated and matched, the groups and variables, each of the four stages, the response categories and the controls.
5. **Discuss the ethical issues:** consent, deception, protection from physical and psychological harm, the right to withdraw and confidentiality.
6. **Give the results:** which children copied which behaviours, comparing the aggressive, non-aggressive and no-model groups, the sex of the model and the sex of the child.
7. **State the conclusions** that were or could be drawn.
8. **Evaluate every part of the study:** method, sample, design, data, observation, validity, reliability, generalisability and ethics.
9. **Relate it to the AS issues and debates:** application to everyday life, individual and situational explanations, nature versus nurture and the use of children in research. No animals were used.
10. **Explain why it belongs to the learning approach**, using the approach's two assumptions, and compare it with the other learning core studies, Fagen et al. and Saavedra and Silverman.

Understand it

The psychology: social learning theory and aggression

Aggression is behaviour meant to hurt or damage, whether physically (hitting, kicking) or with words (threats, insults).

Social learning theory (SLT) says we can pick up a new behaviour just by **watching** someone else do it. The person watched is a **model**. Nobody needs to reward the learner directly; learning happens through **observation**, and the behaviour may be shown later through **imitation**. SLT breaks this into steps:

- **Attention**: the learner has to notice the model and what they do.
- **Retention**: the behaviour is stored in memory, so it can be reproduced later, even when the model has gone.
- **Reproduction**: the learner has to have the skills, and the confidence, to carry the behaviour out.
- **Motivation**: the learner needs a reason to perform it, such as having seen the model rewarded (**vicarious reinforcement**).

Imitation is more likely when the model is someone the learner identifies with, for example an adult of the **same sex**.

Background

Earlier experiments had found that a child will copy an adult's actions **while that adult is right there in the room**. What had not been tested was whether a child who had only watched an adult would reproduce the behaviour **later, in a new place, with the adult absent**. This is **delayed imitation**: the copying happens later, not at the moment of watching. If it happens, the behaviour must have been learned and stored, not just copied on the spot. Bandura et al. used aggression to test this.

The aims

- **Copying aggression**: to find out if children who see an adult behave aggressively will then imitate that aggression, compared with children who see a calm adult or no adult at all.
- **No model present**: to test whether this imitation still happens in a different room once the model is no longer there.
- **Sex of the model**: to see whether children copy a **same-sex** model more than an opposite-sex model.
- **Sex of the child**: to see whether boys imitate more aggression than girls.

The sample

Feature	Detail
Size	72 children
Sex	36 boys and 36 girls
Age	37 to 69 months (about 3 to 6 years); mean 52 months
Where from	Stanford University Nursery School , in the USA
Groups	Eight experimental groups of 6 , plus a control group of 24

The sampling technique was not reported.

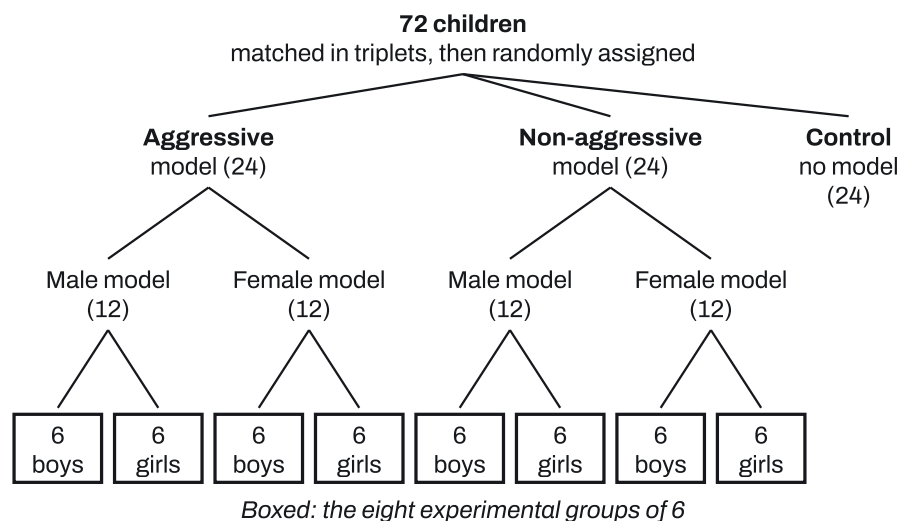
Stage 1: rating and matching the children

Before the experiment, every child was watched at the nursery by **two raters**: the **experimenter** and a **nursery school teacher** who knew the children well. Each child was given a score from 1 to 5 on **four 5-point scales**:

- physical aggression;
- verbal aggression;
- aggression towards inanimate objects;
- aggressive inhibition (how far the child held back from aggression).

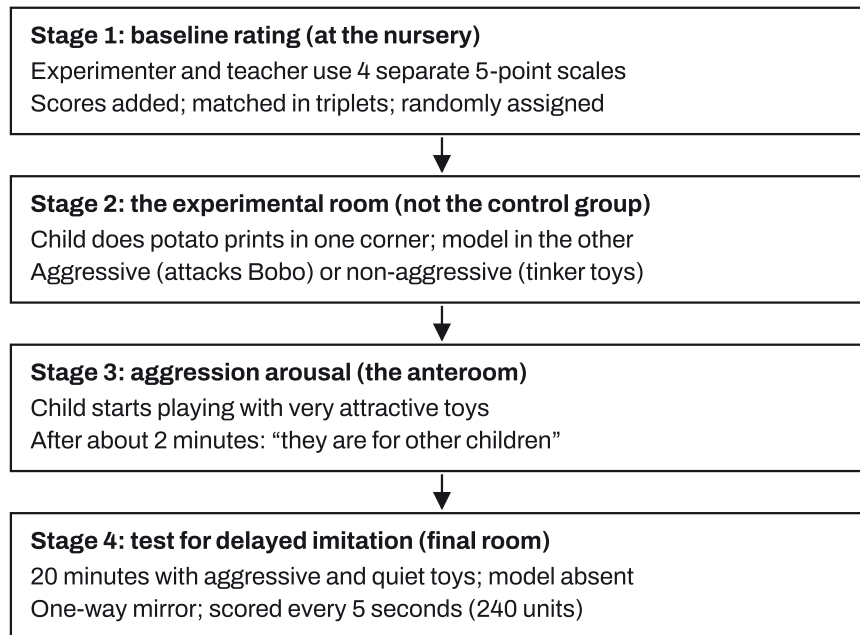
The raters worked **independently**, so their scores could be compared to check **inter-rater reliability**. The four scores were **added together** to give each child one overall aggression score. Children with similar scores were then put into sets of three (**matched in triplets**), and the three children in each set were **randomly assigned**, one each, to the aggressive, non-aggressive and control conditions. This meant every condition started with the same spread of naturally aggressive and calm children.

The groups and variables



- **Independent variables:** the **behaviour of the model** (aggressive, non-aggressive or no model); the **sex of the model** (male or female); the **sex of the child** (boy or girl).
- **Dependent variable:** how much of each kind of behaviour the child showed in the final room, especially **imitative aggression**.
- **Experimental design:** **independent measures** (each child was in one condition only), with children **matched** on their prior aggression before random allocation.
- **Research method:** a **laboratory experiment**, with data collected by **controlled, non-participant observation** through a **one-way mirror**.

The four stages



Stage 2: watching the model (the experimental room)

1. The experimenter brought the child into the room and took them to **one corner**, a structured play area, and sat them at a **table**.
2. She showed the child how to make pictures with **potato prints** and **stickers**, so the child had something to do.
3. Once the child was busy, she took the model to the **opposite corner**, where there was a small table and chair, **tinker toys**, a **mallet** and an inflatable **Bobo doll**. She told the child these toys were for the model.
4. The experimenter then **left the room**. Control children skipped this stage.

What the model did depended on the condition:

- **Aggressive model:** after a short time assembling the tinker toys, the model turned on Bobo. They laid it on its side and **sat on it, punched it, hit it with the mallet, threw it in the air** and **kicked it** around the room, in a fixed order, while saying things like "Sock him", "Hit him down", "Throw him in the air", "Kick him" and "Pow". They also made non-aggressive comments such as "He keeps coming back for more" and "He sure is a tough fella".
- **Non-aggressive model:** played quietly with the tinker toys the whole time and **ignored** Bobo.

The children watched a **live** adult in the same room, not a film.

Stage 3: aggression arousal (the anteroom)

1. Each child, from every condition, was taken by the experimenter to a different room (an **anteroom**) containing **very attractive toys**, for example a fire engine, a locomotive, a fighter jet, a spinning top, a doll carriage and a doll set with a wardrobe.
2. The child was told they could play with them.

3. As soon as the child had started playing (usually after about **2 minutes**), the experimenter stopped them. She said these were her **very best toys**, that she did not let just anyone play with them, and that she had decided to keep them for **other children**.
4. The experimenter sat away from the child doing paperwork during this stage.

Why do this? The researchers gave two reasons:

- **To make every child mildly frustrated**, so that all of them were equally ready to behave aggressively in the next room. Without this, children who had watched the calm model, or no model, might show so little aggression that differences between the groups could not be seen.
- **To rule out a "draining" effect**: someone might argue that watching aggression lets a child release their own aggressive feelings (catharsis) and so makes them **less** aggressive. Frustrating every child first meant that, if the aggressive-model children were still more aggressive, watching aggression had not used their aggression up.

Stage 4: the test for delayed imitation (the final room)

1. The child went into a third room for **20 minutes**. The model was not there.
2. It held **aggressive toys** (such as a Bobo doll, a mallet and dart guns) and **non-aggressive toys** (such as a tea set), always laid out in the **same fixed places**.
3. Observers watched through a **one-way mirror**. The session was split into **5-second intervals**, timed with an electric interval timer, giving **240 response units** for each child. In each interval the observer recorded which behaviour categories occurred.
4. The **male model** scored every child; a second observer independently scored **half** of the children, so that inter-rater reliability could be checked. Agreement between the observers was high.

The response categories

The behaviours were **operationalised** (defined precisely) before the observations, so different observers would score them the same way.

Category	What counted
Imitative physical aggression	Copying the model's exact acts: sitting on Bobo and punching it, hitting it with the mallet, throwing it in the air, kicking it
Imitative verbal aggression	Repeating the model's aggressive phrases: "Sock him", "Hit him down", "Kick him", "Throw him in the air", "Pow"
Imitative non-aggressive verbal responses	Repeating the model's other phrases: "He keeps coming back for more", "He sure is a tough fella"
Partially imitative: mallet aggression	Hitting something other than Bobo with the mallet
Partially imitative: sits on Bobo	Laying Bobo down and sitting on it without attacking it
Non-imitative: punches Bobo	Striking, slapping or pushing the doll aggressively

Category	What counted
Non-imitative physical and verbal aggression	Aggressive acts towards things other than Bobo, or hostile remarks that were not the model's
Non-imitative: aggressive gun play	Shooting darts, or aiming the gun at things in the room and firing pretend shots

Ethical issues

Guideline	What it means	In this study
Consent / informed consent	A person only takes part once they understand what the study will involve and have said yes	The report says nothing about consent from parents or children; nobody knows if it was obtained
Deception	Researchers may only mislead people about a study when there is a very good reason and it won't upset them	Children were told the anteroom toys were for "other children", and they did not know they were being watched in the final room (broken)
Protection from psychological harm	Nobody should be upset, frightened or stressed by taking part, beyond what everyday life brings	Watching an adult attack a doll may have frightened some children; all were deliberately frustrated; some may have stayed more aggressive afterwards (broken)
Protection from physical harm	Participants should not be put at risk of injury	Bobo is soft and made to be hit, but children used a mallet and dart guns, and could have hurt themselves (arguable)
Right to withdraw	Participants can stop whenever they like	Young children would not know they could leave, and at times they were kept from leaving a room (arguably broken)
Confidentiality	Nothing published can identify a participant	Only the nursery and the age range were reported (kept)

Nobody explained the study to the children afterwards, and nothing was done to make sure they went home no more aggressive than they had arrived.

The results

Bandura et al. reported mean scores for each group. You need the **direction** of each finding, with a comparison:

- **Aggressive model groups** showed far more **imitative physical and verbal aggression** than the non-aggressive and control groups. Nearly every child who had watched the aggressive model copied some of the model's new aggressive acts; this was almost never seen in the other groups.
- **Sex of the child: boys** imitated more **physical** aggression than girls.

- **Same-sex model:** boys imitated more aggression from the **male** model than from the female model (for example, more verbal aggression).
- **Aggressive gun play** (not shown by any model): boys showed more than girls across the conditions; boys showed the most after an aggressive **male** model; girls showed the least after an aggressive **female** model. Boys' gun play was similar whether their model had been aggressive or not.
- **Mallet aggression:** boys who had watched an aggressive **male** model showed the most.

The conclusions

- **Observation alone can teach aggression:** children acquired, and later carried out, aggressive acts purely from watching an adult, without anyone being rewarded.
- **Learning is stored:** children reproduced what they had seen in a different room, after a delay, with the model absent.
- **Same-sex models are copied more,** so who the model is affects how much is imitated.
- **Boys are more likely than girls to imitate physical aggression.**

A **result** is what was measured ("boys showed more gun play than girls"). A **conclusion** is the general claim the results support ("children learn aggression by watching adults"). Questions treat them as different things.

Why it is from the learning approach

The learning approach has two assumptions (syllabus), given here in plain words:

- **The blank slate:** nobody is born already knowing how to behave. What we do is moulded by our experiences and by everything we meet in our surroundings, and the changes this produces can be seen and recorded.
- **Three ways of learning:** behaviour is acquired through **operant conditioning** (consequences), **classical conditioning** (association) and **social learning** (watching others), each of which can be described as a **stimulus** leading to a **response**.

Bandura et al. fits the second: children **observed** a model (stimulus) and later **imitated** the model's exact acts and phrases (response), which is **social learning**. It fits the first too: children had been **matched** on their earlier aggression, yet what they did in the final room depended on the model they had been shown, so their **experience** shaped their behaviour.

Issues and debates

- **Application to everyday life:** limiting children's exposure to aggressive models (TV, video games, adults at home); using calm, prosocial models to teach good behaviour.
- **Nature versus nurture:** mainly **nurture**: the groups started out equally aggressive, so the extra copying after an aggressive model came from experience. The **nature** side can point to the sex difference in physical aggression, where male hormones might play a part.
- **Individual and situational explanations:** **situational**: the model the child saw changed their aggression. **Individual**: sex differences, and children's own earlier aggression levels.

- **The use of children:** children are still learning, which suits a study of learning, but they cannot give fully informed consent, are easily frightened, and may not know they can stop.

Comparing with the other learning studies

Point	Bandura et al.	Fagen et al. (elephant learning)	Saavedra and Silverman (button phobia)
Method	Laboratory experiment	Observation	Case study
Data	Quantitative (counts of each category)	Quantitative, from a behavioural checklist	Mainly qualitative (interviews), plus scales
Learning process	Social learning (observation and imitation, vicarious)	Operant conditioning (positive and secondary reinforcement, shaping)	Classical conditioning and evaluative learning (disgust)
How behaviour was learned	Watching someone else	Direct rewards to the animal	Direct experience and treatment

Key facts and formulas

There is no formula list in the 9990 exam. "Learn it" means you must remember it.

Fact	Status
Bandura et al. sample: 72 children, 36 boys and 36 girls, aged 37–69 months (mean 52 months), Stanford University Nursery School	Learn it
Bandura et al. groups: 24 aggressive model, 24 non-aggressive model, 24 control; eight experimental groups of 6 (model's behaviour × model's sex × child's sex)	Learn it
Bandura et al. baseline rating: experimenter and nursery teacher, independently, four 5-point scales (physical aggression, verbal aggression, aggression towards inanimate objects, aggressive inhibition); scores added; matched in triplets; randomly assigned	Learn it
Bandura et al. aggression arousal: anteroom with attractive toys; stopped after about 2 minutes; told the toys were for other children	Learn it
Bandura et al. final room: 20 minutes, aggressive and non-aggressive toys in fixed places, one-way mirror, 5-second intervals, 240 response units per child	Learn it
Bandura et al. imitative verbal aggression: "Sock him", "Hit him down", "Kick him", "Throw him in the air", "Pow"; non-aggressive verbal: "He keeps coming back for more", "He sure is a tough fella"	Learn it
Response units = $\frac{\text{session length in seconds}}{\text{interval length in seconds}}$, for example $\frac{20 \times 60}{5} = 240$	Learn it
Percentage = $\frac{\text{part}}{\text{whole}} \times 100$	Learn it

How to do it

We have tagged 47 questions on this study, from 2021 to 2026 (Papers 1 and 2). 17 of them have parts of more than one type, so the counts add up to 67.

Question type	Questions
Describe a part of the procedure	10
Outline a result or conclusion	7
Learning approach: assumption or SLT feature linked to Bandura	6
Evaluate in 10 marks: two strengths and two weaknesses	5
Outline one strength or weakness	5
Apply a research-methods idea to Bandura	5
Ethics: define a guideline and apply it	5
Define or give examples of a response measure	5
Applications and advice in a scenario	5
Describe the sample	4
Aim, background or psychology investigated	4
Nature versus nurture with Bandura evidence	3
Compare Bandura with another study	3

1. Describe a part of the procedure (10 questions)

These are marked one point per mark from a fixed list, so learn the four stages in order.

1. **Find the exact stage asked for:** the baseline rating, the allocation, the experimental room, the aggression arousal, or the final room. The reports say many answers described the wrong stage (the final room when the baseline rating was asked, or the arousal when the final room was asked) and scored nothing.
2. **Write one separate fact per mark**, with the numbers: four 5-point scales, about 2 minutes, 20 minutes, 5-second intervals, 240 units.
3. Two named toys earn one mark, and so do two named categories.

Variations you will meet:

- **Baseline rating** (2 marks): at the nursery; by the experimenter and a nursery teacher; four 5-point scales (naming two earns a mark); rated independently; scores added into one total.
- **Allocation to conditions** (2–4 marks): scores from the four scales added; matched in **triplets** with similar scores; each **randomly assigned** to a condition. Splitting by sex or by model is ignored.

- **Experimental room, up to the start of the model's play** (5 marks): the corner; a structured play area; the child at a table; shown potato prints and stickers; the model taken to the opposite corner with tinker toys, mallet and Bobo; told these were for the model; the experimenter left.
- **Aggression arousal** (5 marks): anteroom; attractive toys (name two); told they could play; stopped after about 2 minutes; "her very best toys"; "not just anyone"; kept for other children; the experimenter sat away doing paperwork. Do **not** say the children were never allowed to play: they did, briefly.
- **Why the arousal stage** (2 marks): so all children were equally frustrated and ready to be aggressive, especially those in the non-aggressive condition, so a difference could show (2); or so that watching aggression could not be said to have drained the children's aggression (2). "To make them angry" alone is brief (1).
- **Final room** (3–4 marks): toys (aggressive and non-aggressive, in fixed places); 20 minutes; one-way mirror; predetermined categories (name two); 5-second intervals; electric timer; 240 response units; the male model scored all, a second observer scored half.
- **Features of the final room** (2 marks): a range of toys; aggressive toys such as Bobo or the mallet; non-aggressive toys such as the tea set; a fixed layout; a one-way mirror.

2. Outline a result or conclusion (7 questions)

- **A conclusion** (2 marks): a general claim about learning, in full. For example: "a child can pick up aggressive acts purely by watching an adult perform them"; "children will copy aggression after a delay, with the model absent"; "children copy same-sex models more"; "the kind of behaviour an adult shows decides what a watching child learns: aggressive models lead to aggressive copying, calm ones do not". A vague claim ("children copy aggression", "girls copy verbal aggression") is brief (1).
- **A result given as a conclusion earns 0**, and so does anything mentioning a "group" or "condition".
- **Don't repeat the conclusion already printed in the question**: the stem often gives one (sex differences, the sex of the model), so give a different one.
- **A result** (2 marks): direction **and** comparison: "boys showed more aggressive gun play than girls" (2), not "boys showed lots of gun play" (1). Talk about the amount of behaviour (averages), not the number of children ("more boys than girls" scores 0).
- **"What psychologists have learned", using two results** (8 marks, two levels-marked halves): for each, a result with a meaningful comparison, then what it shows about aggression ("boys copied the male model's verbal aggression more than the female model's, so children learn more from models they identify with").

3. Learning approach: assumption or SLT feature linked to Bandura (6 questions)

1. **The assumption** (2 marks): full = the blank slate **plus** experience shaping observable behaviour; or learning through operant conditioning, classical conditioning **and** social learning (name at least two). A bare "blank slate" or a single named process is brief (1). "Observing and imitating" alone is **not** an assumption.
2. **The Bandura example or finding** (1 mark): the children imitated the model's attacks on Bobo; or children with the aggressive model copied more aggression than those with the calm model.

3. **The link** (1 mark): say explicitly how it shows the assumption: "they observed and then imitated a model, which is social learning". Naming the assumption alone isn't a link.
4. **An SLT feature** (3 marks): identify it (attention, retention, reproduction, motivation, modelling), outline it in general terms, then a Bandura example. For instance: **retention** (1); the observed behaviour is held in memory for later (1); children reproduced the model's phrases in a different room with the model gone (1). Answers about reinforcement or punishment score nothing here.
5. **"Why is it from the learning approach?"** (2 marks): an assumption (social learning) plus how the study shows it (children observed and imitated the model). Vicarious learning and the effect of experience count; rewards and reinforcement do not.

4. Evaluate in 10 marks: two strengths and two weaknesses (5 questions)

The named issue has been ethics, generalisation from the sample, validity, reliability and quantitative data.

1. **Plan four points of equal depth**, one on the **named issue**. Leaving it out caps the answer at Level 3 (6 marks).
2. For each point: name it, say if it's a strength or weakness of **this** study, give **at least two** details from Bandura et al., and explain **why** it matters.
3. **Never describe the procedure for its own sake**, and leave out applications: they are not evaluation (the reports say "GRAVE" essays that include an application lose time).
4. Avoid the errors the March 2025 report lists: the children did **not** watch the model on a screen, and nobody is known to have given informed consent.

Point	Strength or weakness	Evidence from the study
Standardisation (reliability)	Strength	Same rooms, same fixed toy layout, the aggressive model's acts and phrases in the same order, the same 20 minutes for everyone, so it can be repeated to check the results
Inter-rater reliability	Strength	Two raters scored baseline aggression independently; a second observer scored half the final-room sessions; agreement was high
Controls (internal validity)	Strength	Matched in triplets on prior aggression, then randomly assigned; all frustrated equally; so differences are likely due to the model
Quantitative data	Strength	Counts in 240 units per child, so groups (aggressive versus calm model, boys versus girls, same versus opposite sex) can be compared objectively
Low demand characteristics	Strength	One-way mirror: children did not know they were being watched, so behaved naturally
Ecological validity	Weakness	A stranger attacking a blow-up doll in a laboratory, then being alone with that doll, is not how children usually meet aggression; Bobo is designed to be hit, so hitting it may not count as real aggression

Point	Strength or weakness	Evidence from the study
Generalisability	Weakness	All from one university nursery (Stanford), probably from similar, well-off families; only 6 children per experimental group
Ethics	Weakness	Children were frightened, frustrated and deceived, may have left more aggressive, with no debrief and no known consent
Quantitative data	Weakness	Counts show how much was copied but not why, or how the child felt

5. Outline one strength or weakness (5 questions)

Name the strength or weakness (1), then give the detail from Bandura et al. that shows it (1).

- **A methodological strength:** ethical strengths are not credited, and "standardisation" or "control" alone earns 0. Give it with its example: the steps were fixed, so others can run it again; for instance, the final-room session lasted 20 minutes for every child, with the toys always in the same places; inter-observer reliability; the one-way mirror; laboratory control of extraneous variables.
- **A weakness of the sample: low generalisability:** every child attended the same university nursery (Stanford), and children from other nurseries, backgrounds or countries could respond to a model differently. "Can't be generalised to adults" isn't credited.
- **A weakness of the final stage:** recording may be biased: copying of the model's unusual acts was so common in the aggressive groups that observers would often have guessed a child's condition; or inter-rater reliability was high but not perfect.
- **A weakness of the baseline rating:** it was subjective, and the teacher already knew the children and may have had a fixed view of how aggressive each was; it was a snapshot of a short period.
- **Valid or not valid** (two friends disagree, 4 marks): pick one side. **Valid:** strict controls such as matching on prior aggression, so cause and effect can be claimed; a laboratory cuts extraneous variables; the one-way mirror lowers demand characteristics. **Not valid:** low mundane realism (children rarely spend time quietly watching a stranger with a blow-up doll), an artificial room, children deliberately frustrated.

6. Apply a research-methods idea to Bandura (5 questions)

Paper 2 asks you to take a general idea and tie it to this study.

- **Inter-rater / inter-observer reliability:** the level of agreement when two or more observers score the same behaviour independently (1). It matters here because the study's claims rest on group differences: if one observer scored generously and another strictly, a gap between conditions could be produced by the scoring rather than by the model the child saw (1). Having two observers is **not** the definition: agreement is.
- **How it was improved** (3 marks): operationalised categories (for example, mallet aggression meant hitting objects other than Bobo with the mallet); four 5-point scales used by both raters; ratings made independently.

- **Why not volunteer sampling** (2 marks): families who put themselves forward may differ from those who don't, giving a biased sample (1); a parent whose child is often violent may not want that seen, while a parent of a gentle child may fear the study would teach bad habits (2).
- **Sample and population**: the sample is the 72 children; the population is all children. A reason not to generalise, apart from age: one university nursery, probably from wealthy, well-educated families; or so many conditions that only 6 children were in each.
- **How quantitative data was collected** (2 marks): by **observation** (1), counting how many times each child performed each behaviour category, in 5-second intervals (1).
- **An advantage of quantitative data** (2 marks): it allows statistical analysis (1), for example comparing average imitative aggression between boys and girls, or between the aggressive and calm conditions (1).

7. Ethics: define a guideline and apply it (5 questions)

Define the guideline without just repeating its name (1), then give evidence from Bandura et al. (1 or more).

- **Consent** (1 mark): agreeing to take part. **Informed consent** (2 marks): the person understands what will happen in the study (1) and, knowing that, says yes (1).
- **Why consent mattered here**: the children might become more aggressive afterwards; they could get hurt with the mallet or dart guns; parents might not want their child shown how to be aggressive.
- **Child-friendly consent** (2 marks): tell it in a child's words ("a grown-up will play with some toys and then you can play too") (1), then ask if that's OK (1).
- **"Explain why the study was not ethical"** (4 marks): name a broken guideline (1), explain it (1), then evidence: watching an adult be violent could scare them; every child was frustrated in the anteroom; they didn't know they were watched; they could hurt themselves; no attempt to reverse learned aggression; no right to withdraw; no consent recorded. **Confidentiality and privacy are not accepted.**
- **One guideline at a time** (2 marks each, levels-marked): confidentiality (kept: only the nursery and ages were reported); deception (broken: toys "for other children", unaware of the mirror); physical harm (broken: copied aggression wasn't reversed, mallet injuries possible); psychological harm (broken: fear, possible lasting effects). Writing about informed consent when another guideline is named scores nothing.
- **Ethical or not** (two friends, 4 marks): pick one side. **Ethical**: confidentiality kept; Bobo is soft and made to be hit. **Not ethical**: psychological harm from watching aggression; no consent asked.
- **Privacy** (2 marks): participants control what personal information about them comes out; they never have to disclose more than in daily life, and can leave out any question or task that feels too personal. Not naming people is confidentiality, not privacy.

8. Define or give examples of a response measure (5 questions)

These lists are definitive; learn the table under "The response categories".

- **Aggressive gun play** (2 marks): shoots darts; aims the gun at objects in the room; fires imaginary shots.
- **Mallet aggression** (2 marks): hits or strikes an object with the mallet; the object is **not** Bobo.

- **Imitative verbal aggression:** define it as the child **repeating** (1) the **aggressive phrases the model said** (1). Examples: "Sock him", "Hit him down", "Kick him", "Throw him in the air", "Pow". Made-up phrases or the child's own insults score nothing.
- **Imitative non-aggressive verbal response:** "He keeps coming back for more", "He sure is a tough fella". The June 2022 report says this part was left blank more than any other on the paper.

9. Applications and advice in a scenario (5 questions)

- **An application** (2 marks each): **what** the application is, clearly from Bandura (1), and **how** it is done (1). It must be ethical. For example: teaching prosocial behaviour (what) by letting children watch an adult share and speak kindly so they copy it (how); people who make children's TV and games (what) could leave out violent characters and write in characters who solve problems kindly (how); parents (what) could check ratings and switch off violent shows (how). The reports say the "how" was often missing. Describing the study or suggesting more research earns nothing.
- **Advice to a person** (4 marks, one per Bandura-based point): bring in a calm, friendly model and have the children watch them; reward the **model** for good behaviour; a same-sex model; keep the child from being frustrated before they play; keep aggressive adults, TV and games away from the child; watch boys' physical aggression more closely. Rewarding the **child** directly is operant conditioning and not credited. Explaining why the child is aggressive, or justifying the advice, earns nothing.

10. Describe the sample (4 questions)

One mark per point, from a definitive list: 72 children; 36 boys and 36 girls; aged 37 to 69 months (3 to 6 years is accepted); mean age 52 months; Stanford University Nursery School; split into eight experimental groups and a control. "Male and female" or "from Stanford University" alone scores 0.

- **Number in each group:** 6 in each experimental group, or 24 in each condition. The total (72) or the number of each sex is wrong here.

11. Aim, background or psychology investigated (4 questions)

- **An aim** (2 marks): it must include **imitate** (or copy, reproduce): to see if children imitate an aggressive model; if they imitate when the model is gone; if they imitate same-sex models more; if boys imitate more aggression than girls. "How children learn aggression", "nature or nurture" or "to test SLT" are brief (1).
- **The background** (4 marks): earlier work showed children copy an adult while the adult is present; SLT, with attention, retention, reproduction and motivation; the study tested **delayed** imitation, where the copying comes some time after the watching. Bandura's own results earn nothing here.
- **The psychology investigated** (4 marks): SLT's steps and a definition of aggression, in general terms; same-sex models copied more; learned behaviour shown without the model. Only **one** mark can come from a Bandura example; the June 2022 report says many answers just repeated the aims.

12. Nature versus nurture with Bandura evidence (3 questions)

1. **Define each side** without using the word itself: nature = inherited: what we do comes from our genes and is set before we are born (1); nurture = acquired: what we do is shaped by our surroundings and experiences as we grow up (1). "Nurture is how we are nurtured" scores nothing.
2. **Nature evidence:** pick a sex difference that held up regardless of the model, such as boys' greater physical aggression (1), then give a biological reason for it, for example male hormones making boys more ready to use force (1).
3. **Nurture evidence:** use the matching. Every condition began with children of similar aggression scores (1), so the gap in the final room between the aggressive-model and calm-model groups can only come from what each group had watched, which is learning (1).
4. If the question asks for an example **other than** Bandura, any other study or everyday case can be used.

13. Compare Bandura with another study (3 questions)

8 marks: a similarity (Level 1–4) and a difference (Level 1–4). Level 4 needs the point **explained** with an example from **both** studies.

1. **Name the similarity or difference** in one sentence.
 2. **Give the example from each study.**
 3. **Explain why it matters** (for example, operationalised categories help observers record the same thing).
- **Similarity with Fagen et al.:** both used observation with operationalised behaviours: in Bandura, aggressive gun play meant shooting darts or firing pretend shots at objects; in Fagen, behaviours on a checklist were defined so they could be recorded. Both collected quantitative data.
 - **Difference with Saavedra and Silverman:** the learning process. Bandura studied **social learning**, learning by watching (vicarious); Saavedra and Silverman used **classical conditioning** (evaluative learning, targeting disgust) through the boy's own direct experience. Or method: experiment versus case study; quantitative versus mainly qualitative.
 - "Both used children", "both from the learning approach" or "different aims" stay at low levels; the sample is often banned, so check the question.
 - **How Bandura differs from other research** (e.g. a claim that watching violent TV reduces aggression): identify the difference, then say how Bandura's side differs: Bandura used a **live** model in a room, not television; and children became **more** aggressive, not less.

Worked examples

Example 1

From the study by Bandura et al. (aggression):

- (a) Explain why each child's aggression was rated before they were put into a condition. [2]

(b) In the final room, each session was divided into short time intervals. Calculate how many intervals there were for each child, and explain one advantage of recording behaviour in this way. [3]

(a) The researchers wanted all three conditions to start with similar numbers of naturally aggressive and calm children (1). So the children were matched in triplets on their total aggression score and each member was randomly assigned to a different condition, meaning a difference in imitation later could be put down to the model, not to the children's personalities (1).

(b) The session lasted 20 minutes = $20 \times 60 = 1200$ seconds, split into 5-second intervals, so $1200 \div 5 = 240$ intervals (M1) (A1). Recording in short, fixed intervals means each child's behaviour is broken into many small checks, so the observers can count how often each category occurred and compare the groups numerically, and two observers can be compared interval by interval to check their agreement (1).

Example 2

Priya runs an after-school club for children aged 4 to 6. Since a new wrestling programme started on television, several boys have been pinning each other to the floor during free play, shouting the presenter's catchphrases.

Using your knowledge of the study by Bandura et al. (aggression), outline the advice you would give Priya. Your advice must be ethical. [4]

Priya could ask a calm, friendly male helper to join the free play, building and sharing toys gently while the boys watch, so they have a non-aggressive model to copy (1). Because the boys are more likely to copy a model of their own sex, a man is a better choice for this than a woman (1). She could praise the helper out loud for playing kindly, so the boys see the calm behaviour being rewarded (1). She could ask parents to limit the wrestling programme at home, so the boys see fewer aggressive models (1). (Rewarding the boys themselves would be operant conditioning, so it would not earn a mark here.)

Example 3

Explain one similarity and one difference between the study by Bandura et al. (aggression) and the study by Hassett et al. (monkey toy preferences). [8]

Similarity: observation with set categories. Both studies collected quantitative data by watching participants and recording behaviour against categories decided in advance. In Bandura et al., observers behind a one-way mirror recorded categories such as imitative verbal aggression and mallet aggression every 5 seconds; in Hassett et al., every time a monkey handled a wheeled or a plush toy, the action was scored from video against a checklist of defined actions. Defining the behaviours beforehand means different observers record the same thing, which makes the data more reliable. (Level 4: explained, both studies used.)

Difference: the explanation being tested. Bandura et al. tested a learning explanation: children copied aggression they had watched an adult perform, so the behaviour came from experience. Hassett et al. looked for a biological explanation: nobody teaches a rhesus monkey which toys suit males or females, so if the sexes still chose differently, the cause was more likely to be inborn, for example hormones. So one study shows how the environment teaches behaviour, the other looks for what is there without such teaching. (Level 4.)

Example 4

Evaluate the study by Bandura et al. (aggression) in terms of two strengths and two weaknesses. At least one of your evaluation points must be about the use of observation. [10]

Plan: strengths are the observation method (the named issue) and controls; weaknesses are ecological validity and ethics. Each paragraph has the point, two or more details, and why it matters.

Strength 1: observation (the named issue). Behaviour was watched through a one-way mirror, so the children did not know they were being observed and had no reason to act in the way they thought adults wanted. The behaviours were also defined in advance, for example aggressive gun play meant shooting darts or firing pretend shots at things in the room, and a second observer scored half the sessions independently. Because the categories were clear and the observers agreed closely, the counts can be trusted to reflect what the children really did.

Strength 2: control. Before the experiment, two raters scored each child on four aggression scales, and children with similar totals were matched in triplets and randomly assigned to the three conditions. Every child also went through the same frustrating anteroom and the same 20-minute final room with toys in fixed places. So the groups began alike and were treated alike, making it likely that the model they watched caused the difference in aggression.

Weakness 1: ecological validity. Children watched an unknown adult attack a blow-up doll and were then left with that same doll. In everyday life children rarely see aggression aimed at a toy built to be hit, and they usually know the adults they copy. Hitting Bobo may have looked like a game rather than real aggression, so the findings may not show how children learn aggression at home or school.

Weakness 2: ethics. The children were deliberately frustrated by having attractive toys taken away, misled about who the toys were for, and some may have been frightened by the adult's violence. There is no record of consent or of any debrief, and nobody checked that the children went home no more aggressive than when they arrived. So the study may have done lasting harm to young children who could not protect themselves.

How it would be marked: four points of equal depth, each with study details and an explanation, including the named issue: the top level (9–10 marks).

Common mistakes

- **Describing the wrong stage:** the 2021 and 2023 reports say many answers gave the final room when the baseline rating was asked, or the arousal stage when the final room was asked. Check the stage in the question before writing.
- **Giving a result as a conclusion:** the reports repeat that a result is factual data, while a conclusion is a general claim. "Boys showed the most mallet aggression with an aggressive male model" is a result and scores 0 as a conclusion.
- **Saying the children watched a video:** the model was a live adult in the same room (March 2025 report).
- **Saying parents and children gave informed consent:** nothing about consent was reported (March 2025 report).

- **Treating inter-rater reliability as "having two observers"**: it is the **agreement** between them (June 2023 report).
- **Giving the total sample, or the number of each sex, when the question asks how many were in each group** (June 2022 report): the answer is 6, or 24.
- **Inventing verbal responses**: only the model's own phrases count as imitative (June 2021 and June 2022 reports).
- **Leaving the "how" out of an application**, or describing the study instead (March 2021 and March 2023 reports).
- **Tautological definitions**: "nurture is about being nurtured" scores nothing (March 2021 report).
- **Missing the named issue** in the 10-mark evaluation, or writing a prepared "GRAVE" essay with an application in it: capped at Level 3 (6 marks).
- **Presenting an assumption from another approach, or just a Bandura finding, as a learning-approach assumption** (March 2026 report).
- **Using standardisation or control with no example** as a strength: it scores 0 alone (March 2026 report).

How to get the marks

- **"Identify" and "state"**: a short, exact answer; only the first answer is marked.
- **"Describe"** a stage or the sample: separate specific facts, one mark each, with the numbers.
- **"Outline"** an aim or conclusion: a full statement (2 marks); an aim needs "imitate", and a conclusion must be general, not a result.
- **"Explain"**: the point (1), then why, linked to Bandura et al. (1). The examiner won't make the link for you.
- **"Suggest"** (applications): what (1) and how (1), clearly based on the study, and ethical.
- **"Using evidence from this study"**: name the specific detail (the anteroom, the one-way mirror, the 20 minutes, the triplets).
- **Two friends disagree**: choose one side and stay with it; name the guideline or type of validity, then give linked evidence.
- **"Evaluate ... two strengths and two weaknesses"** (10 marks): four equal points, the named issue included, at least two study details in each, no description and no applications.
- **Similarity and difference** (8 marks): state it, give an example from **each** study, explain why it matters.

Quick check

1. The youngest child was 37 months old and the oldest 69 months. Calculate the age range, in months and in years and months.
2. What percentage of the sample were girls?
3. The mean age was 52 months. Write this in years and months.
4. Give one result and one conclusion from the study, and say which is which.

5. A researcher repeats the final stage with a 15-minute session scored every 3 seconds. Calculate the number of response units per child, and explain one problem with making the intervals shorter.

Answers

1. $69 - 37 = 32$ months, and $32 = 2 \times 12 + 8$, so **32 months**, or **2 years 8 months**.
2. $\frac{36}{72} \times 100 = 50\%$.
3. $52 = 4 \times 12 + 4$, so **4 years 4 months**.
4. Result: boys showed more aggressive gun play than girls (a measured comparison). Conclusion: children can learn aggression just by watching an adult behave aggressively (a general claim about learning).
5. $15 \times 60 = 900$ seconds, and $900 \div 3 = 300$ response units. With only 3 seconds per interval, the observer has less time to decide which category a behaviour fits, so more mistakes and more disagreement between observers are likely, lowering reliability.

Past questions to try

- **9990/12/M/J/24 Q1**: the baseline rating scales, allocation to conditions and the final room.
- **9990/11/M/J/24 Q4**: mallet aggression and one feature of social learning theory with an example.
- **9990/12/O/N/24 Q8**: explaining why the study was not ethical, with evidence.
- **9990/13/O/N/25 Q7**: the nature versus nurture debate with an example of each side.