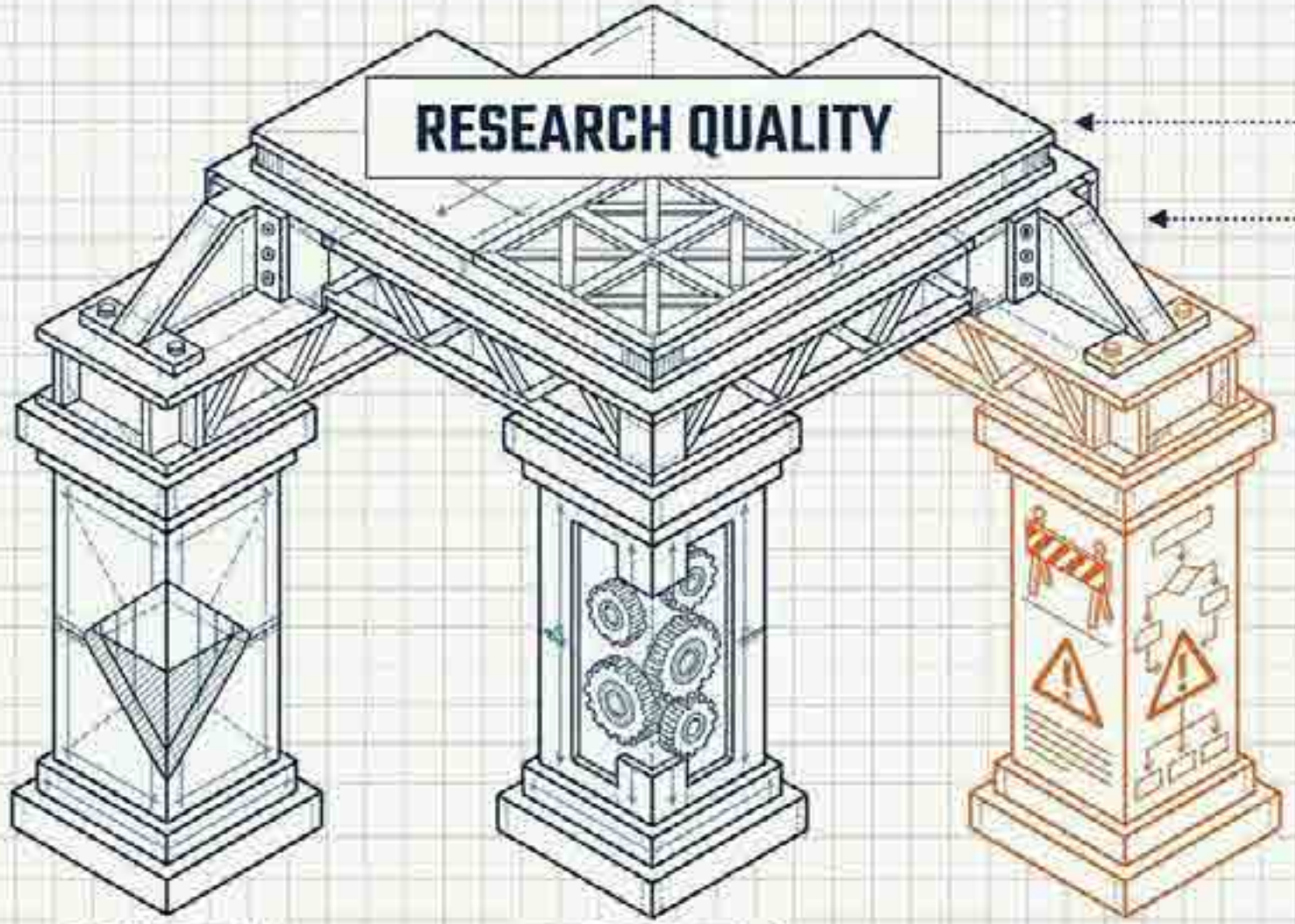
QUALITY STANDARDS IN CLASSROOM-BASED RESEARCH



VALIDITY / TRUSTWORTHINESS

Does it measure what it claims? Are the arguments credible?

RELIABILITY / DEPENDABILITY

Can the findings be consistently replicated?

ETHICS

Is the impact on individuals and communities justified and safe?

FEASIBILITY:

Completed with available time, resources, and access?

NOVELTY:

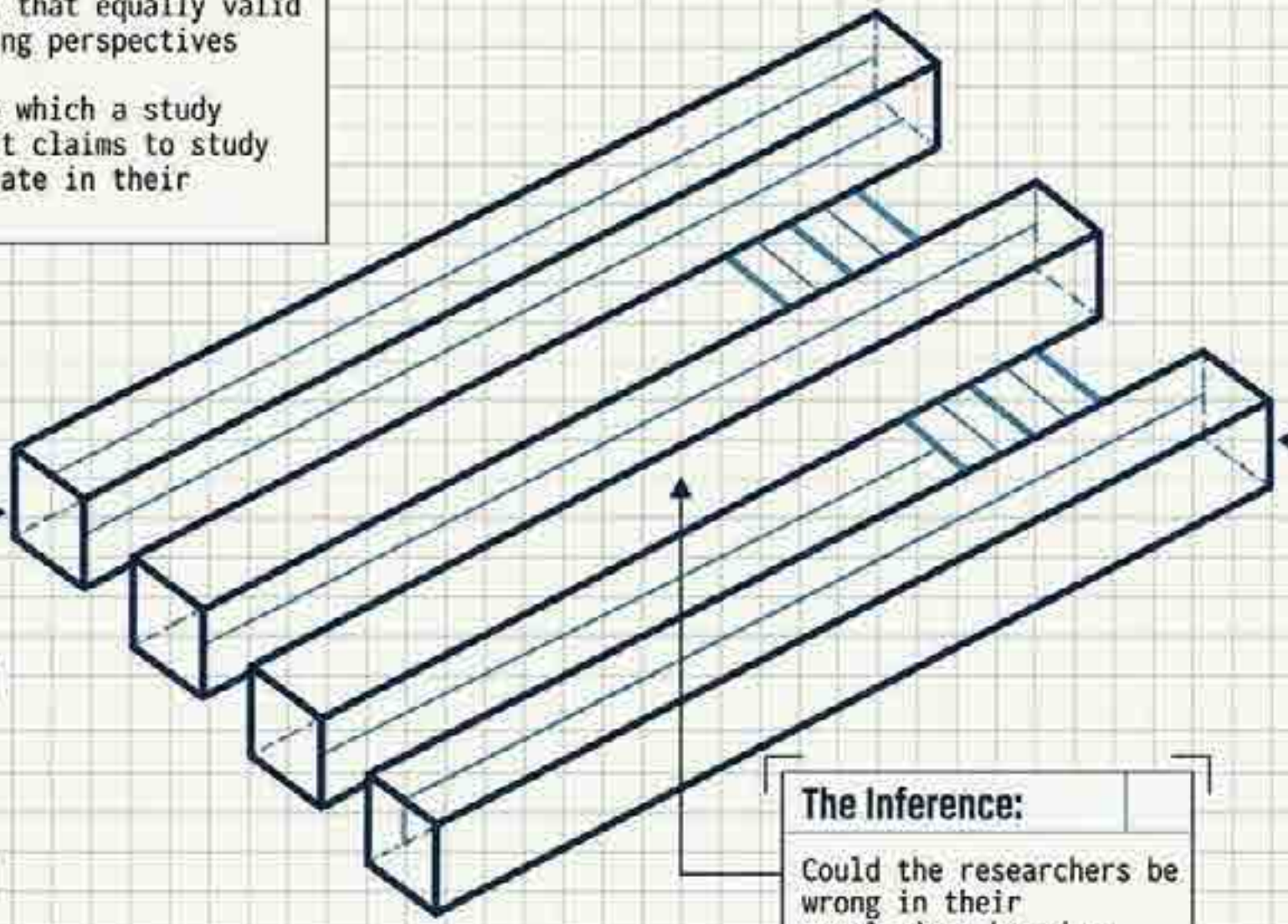
Introduces new data, methods, or perspectives to fill a gap?

RELEVANCE:

Addresses practical issues or contributes to discourse?

The Illusion of Perspective: Defining Validity

Reality can be so complex that equally valid observations from differing perspectives appear contradictory.
Validity is the extent to which a study genuinely purports what it claims to study and researchers are accurate in their inferences.



The Measurement:

Does it reflect the actual phenomenon being researched?

The Inference:

Could the researchers be wrong in their conclusions based on what they observe?

The Knowledge:

Can the community trust the generated arguments and postulations?

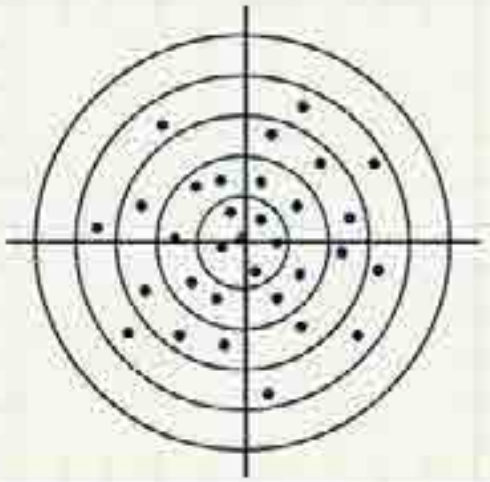
Instrument Calibration: Reliability vs. Validity

Random Error (Precision)

Systematic Error (Bias)

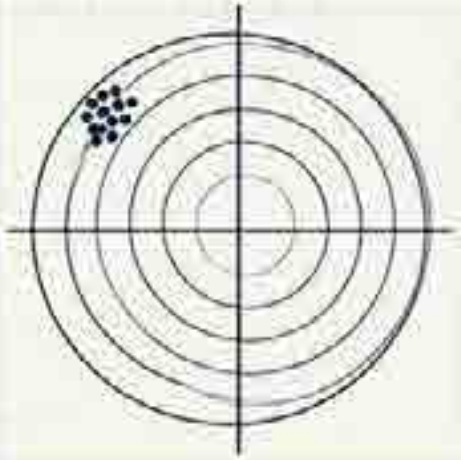
Reliable & Valid

Consistent measurements of the true construct.



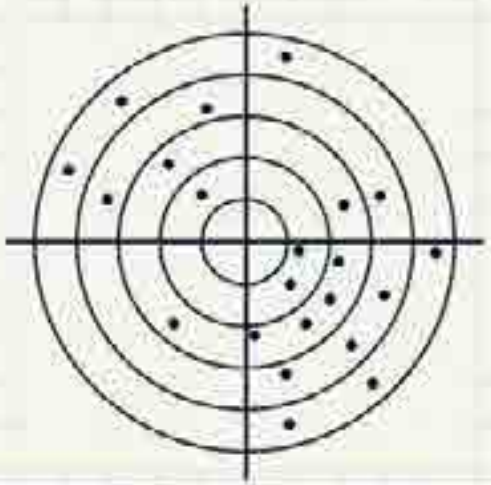
Valid, Not Reliable

Averages out correctly, but individual measurements fluctuate.



Reliable, Not Valid

Measures consistently, but measures the wrong construct.



Neither Reliable Nor Valid

Averages out correctly, but individual measurements fluctuate.

Technical Metrics: Reliability (Cronbach alpha, K-R20) | Statistical Significance (p-value < 0.05)

Verifying the Proof: The Shield of Validity

Content Validity.

Core Question: Does our test actually measure all the parts of the phenomenon we care about?

Face Validity.

Core Question: Does this look like a legitimate test to the students taking it?

Construct Validity.

Core Question: Are we accurately capturing the invisible concept (like 'fluency' or 'anxiety')?

Criterion-related Validity.

Core Question: Do our results line up with established, well-known tests like the TOEFL?

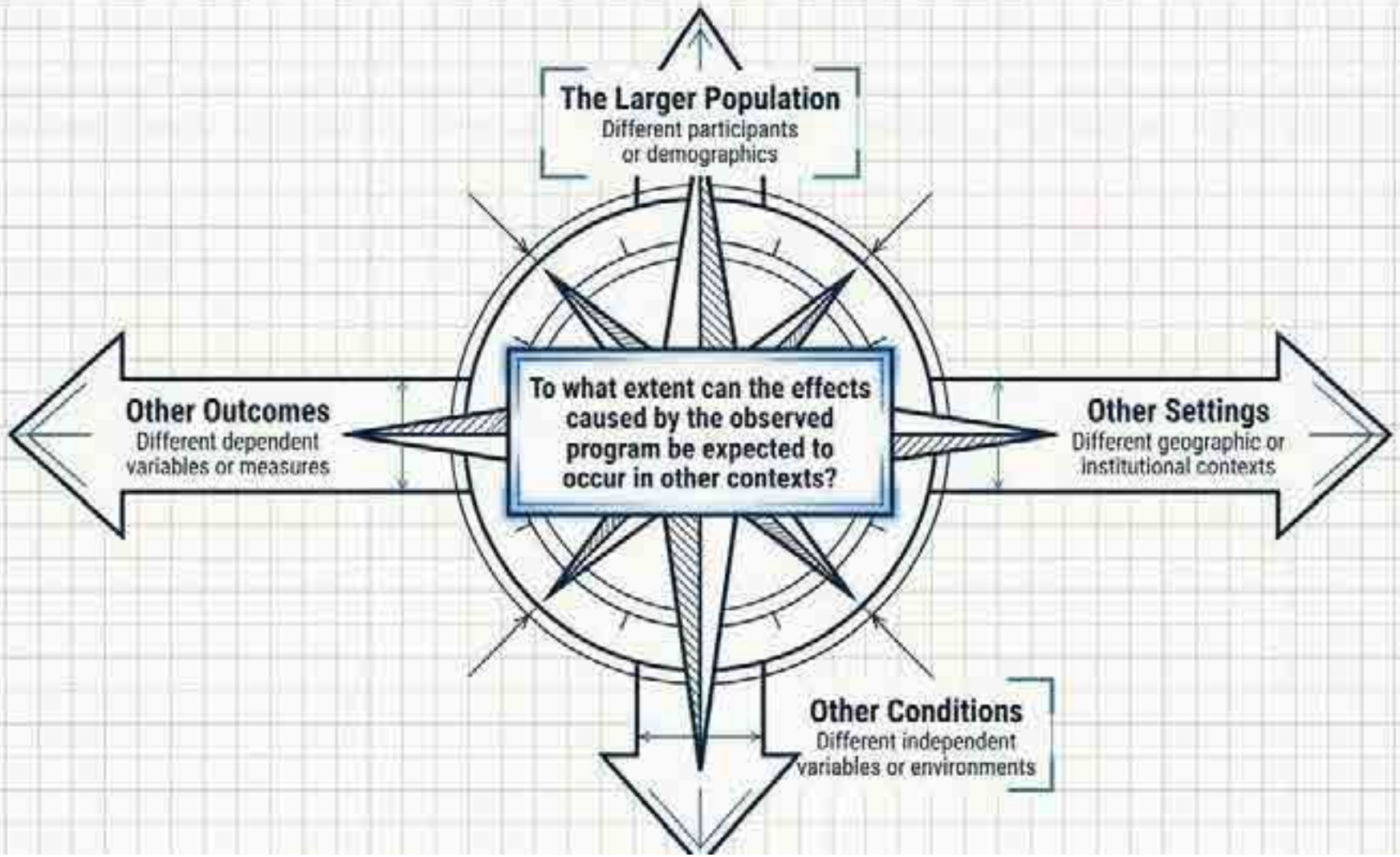
Internal Validity.

Core Question: Did our app REALLY cause the higher scores, or was it a confounding gremlin?

External Validity.

Core Question: Can we generalize these results to learners outside of this one specific classroom?

The Generalization Compass: External Validity



Defending the Dataset: Threats to Survey Validity

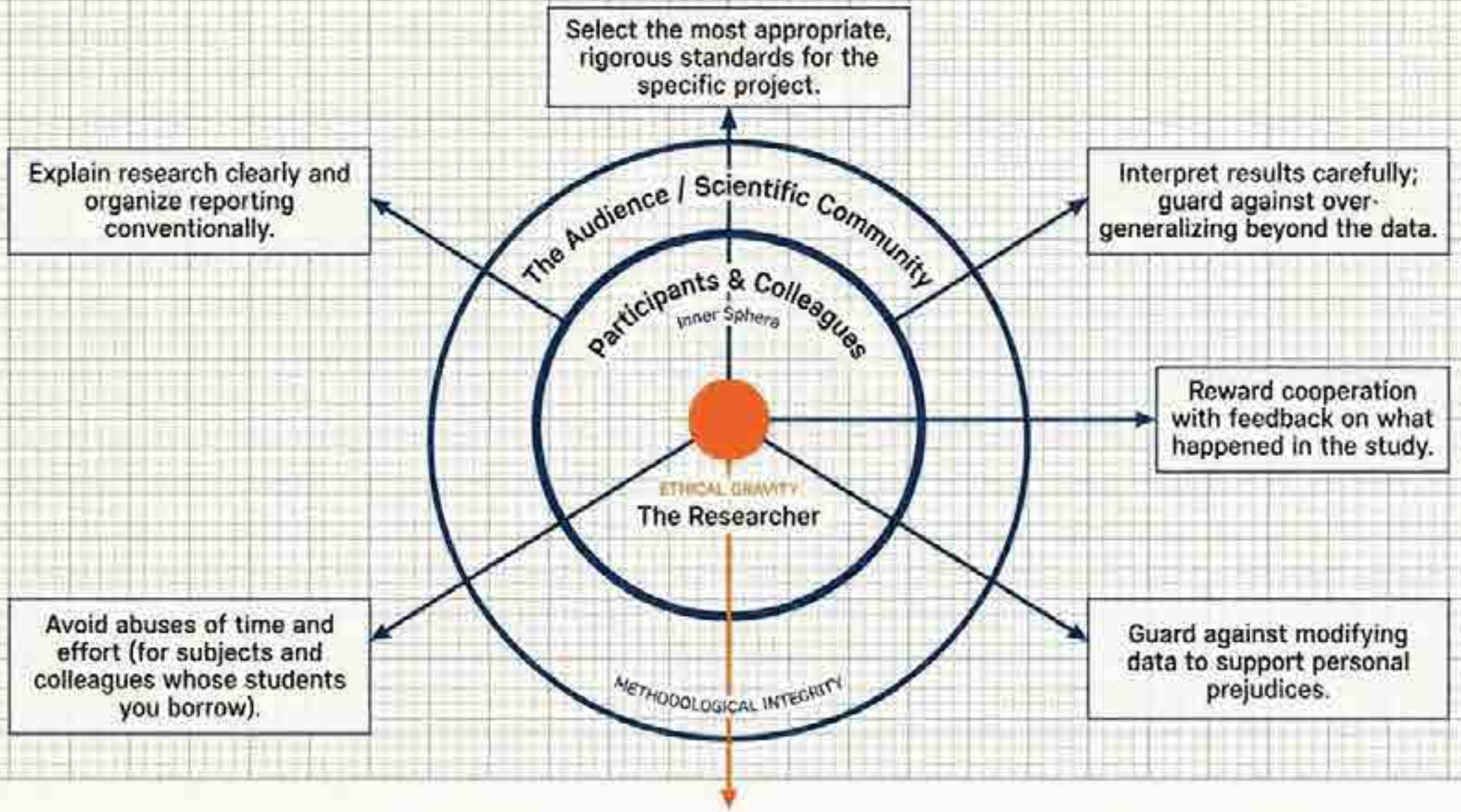
Construct Threat
Unconscious or automatized behaviors cannot always be accessed via conscious self-reporting.

Language Threat
Imperfect L2 comprehension skews results.
Defense: Back-translation protocols.

Fatigue Threat
Diminishing returns in concentration. Defense: Cap survey time at an absolute maximum of 30 minutes.

Bias Threat
Prestige bias (wanting to look good), self-deception, and acquiescence bias (pleasing the researcher).

Spheres of Responsibility



ETHICAL RISK PROFILES: HUMAN INTERACTION DEFICITS

ANONYMITY & CONFIDENTIALITY

RULE: Anonymity = identities hidden. Confidentiality = identities known but kept secret.

HAZARDS:
Forcing participants to provide unnecessary details; failing to scrub data so subjects are identifiable when shared.

INFORMED CONSENT

RULE: The right to make informed decisions and enter of free will.

HAZARDS:
Withholding information, dishonesty, forging consent, or failing to check if terms were understood.

RESPECT & CULTURAL SENSITIVITY

RULE: Regard for beliefs, customs, heritage, and the right to choose.

HAZARDS:
Culturally insensitive design, invading personal privacy, or ignoring customs.

NotebookLM

Activity 6: Research Quality Concepts

Instructions: What are these concepts?

1. **Ethics:**
2. **Feasibility:**
3. **Novelty:**
4. **Relevance:**
5. **Reliability:**
6. **Trustworthiness:**
7. **Validity:**

Matching Task: Research Quality Concepts

Instructions: Match each concept related to research quality with its correct description or example.

1. _____**:** Addressing whether the research question genuinely measures what it claims to measure.
2. _____**:** The degree to which the research findings can be consistently replicated under similar conditions.
3. _____**:** Considering the potential impact of the research on individuals and communities and following ethical guidelines.
4. _____**:** Ensuring that the research design is respected and credible, such as through transparent methodology and careful data collection.
5. _____**:** Ensuring the study can be completed within the available time, resources, and access to participants.
6. _____**:** Filling a gap in the literature by introducing new data, methods, or perspectives.
7. _____**:** Ensuring the research addresses practical issues, benefits society, or contributes to ongoing academic discourse.

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The Final Inspection: Applied Linguistics Quality Checklist

The Integrity Check (Ethics)

- [ ] Is informed consent comprehensive and verified?
- [ ] Are anonymity/confidentiality protocols bulletproof?
- [ ] Is the cost-benefit ratio of risk justified (Beneficence)?
- [ ] Are recruitment practices fair and non-coercive (Justice)?

The Calibration Check (Validity/Reliability)

- [ ] Do the tools consistently yield the same results (Reliability)?
- [ ] Does the test actually measure the targeted construct (Construct)?
- [ ] Are threats to internal validity (maturation, testing) controlled?
- [ ] Is the scope of generalizability accurately defined (External)?

The Trust Check (Qualitative Execution)

- [ ] Has prolonged engagement been achieved?
- [ ] Are multiple data points and observers utilized?
- [ ] Have interpretations been peer-debriefed and member-checked?
- [ ] Is the context described well enough for transferability?

STATUS: APPROVED

Q&A