Blinded experiment

In a blind or blinded experiment, information which may influence the participants of the experiment is withheld (masked or blinded) until after the experiment is complete. Good blinding can reduce or eliminate experimental biases that arise from a participants' expectations, observer's effect on the participants, observer bias, confirmation bias, and other sources. A blind can be imposed on any participant of an experiment, including subjects, researchers, technicians, data analysts, and evaluators. In some cases, while blinding would be useful, it is impossible or unethical. For example, it is not possible to blind a patient to their treatment in a physical therapy intervention. A good clinical protocol ensures that blinding is as effective as possible within ethical and practical constraints.

Double-blinded

The terms **blinded experiment** and **blinded study** are often used interchangeably, but they can differ slightly depending on the context:

1. **Blinded Experiment**:

1. A **blinded experiment** refers specifically to experiments in which information that could introduce bias is withheld from the participants or researchers. It typically involves scientific or laboratory experiments, where control over variables is strict.
2. In these experiments, “blinding” is implemented to prevent the participants or experimenters from knowing which treatment or condition is being applied, thus ensuring objective results.
3. This term is more common in basic sciences, lab work, or any controlled environment where a specific hypothesis is tested.

2. **Blinded Study**:

1. A **blinded study** is a broader term and is more commonly used in clinical or human subject research. It involves blinding one or more parties (participants, researchers, clinicians, or assessors) to the treatment assignments or conditions.
2. This term is often associated with clinical trials, behavioral research, or field studies. It may encompass broader study methodologies, including randomization and follow-ups, beyond just the experimental phase.
3. Blinded studies are designed to reduce biases in long-term observations or clinical outcomes, ensuring that subjective factors do not affect the study’s integrity.

Key Difference:

1. **Blinded Experiment** is a more specific term for controlled, typically lab-based experiments, whereas **Blinded Study** covers a broader range of research designs, including clinical trials, field studies, and observational research where blinding is used.