

Research design vs research question

Purpose	Example	Randomized controlled study	Controlled Before/After study	Before/After, Longitudinal study	Controlled study	Cross-sectional study	Qualitative study
Effect, Impact	<ul style="list-style-type: none"> Does A have an effect/impact on B? What are the critical success factors for A? What are the factors that affect B? 	high (90%)	moderate (80%)	limited (70%)	limited (70%)	low (60%)	n.a.
Prediction	<ul style="list-style-type: none"> Does A precede B? Does A predict B over time? 	high (90%)	high (90%)	high (90%)	low (60%)	low (60%)	n.a.
Association	<ul style="list-style-type: none"> Is A related to B? Does A often occur with B? Do A and B covary? 	high (90%)	high (90%)	high (90%)	high (90%)	high (90%)	n.a.
Difference	<ul style="list-style-type: none"> Is there a difference between A and B? 	high (90%)	high (90%)	high (90%)	high (90%)	high (90%)	n.a.
Frequency	<ul style="list-style-type: none"> How often does A occur? How many people prefer A? 	n.a.	n.a.	n.a.	n.a.	high (90%)	n.a.
Attitude, opinion	<ul style="list-style-type: none"> What is people's attitude toward A? Are people satisfied with A? Do people agree with A? 	n.a.	n.a.	n.a.	n.a.	high (90%)	limited (70%)
Experience, perceptions, feelings, needs	<ul style="list-style-type: none"> What are people's feelings about A? What do people need to do or to use A? 	n.a.	n.a.	n.a.	n.a.	moderate (80%)	high (90%)
Exploration, theory	<ul style="list-style-type: none"> Why does A occur? Why is A different from B? In what context does A occur? 	n.a.	n.a.	n.a.	n.a.	moderate (80%)	high (90%)

When we critically appraise the trustworthiness of a study, we need to consider its methodological appropriateness to the type of question that it aims to answer. Findings from a study with low methodological appropriateness will also have low trustworthiness/certainty, regardless of how well the study was conducted. When critically appraising a study's trustworthiness, we therefore start by identifying its research design. The resultant methodological appropriateness is then expressed in a measure of trustworthiness. Note that we don't judge the trustworthiness of a study as such, because studies are not intrinsically trustworthy or untrustworthy. We can only judge the trustworthiness of a study's findings given its research design and the type of question it aims to answer.