

Levels of Evidence of Causal Inference	Group Experimental Designs	Single Subject Designs	Correlational	Literature Reviews and Meta-Analyses
Strong	<ul style="list-style-type: none"> • 4 acceptable quality or 2 high quality • High quality = must meet 1, 2, 3, 4, 6, 8, 9 & 10 and 5 or 7 of EQIs and at least 4 of the DQIs • Acceptable = must meet 1, 2, 3, 4, 6, 8, 9 & 10 and 5 or 7 of EQIs and at least 1 of the DQIs • Must calculate effect size or report data that allows for calculation • There is no contradictory evidence from a study reflecting strong evidence 	<ul style="list-style-type: none"> • 5 high quality studies • High quality = meets all QIs • 3 independent research teams • Must demonstrate a functional relationship • There is no contradictory evidence from a study reflecting strong evidence 	NA	<ul style="list-style-type: none"> • Comprehensive or systematic literature reviews • Described search methods and inclusion criteria • Provides a quantitative summary of data • Meta-analysis has overall ES >.40 or PND > 70% • If includes both quasi and true group experimental studies, provided analysis of ES for each study design separately • If QI study; majority of articles reviewed were summarized as high quality
Moderate	<ul style="list-style-type: none"> • 2 acceptable quality or 1 high quality • High quality = must meet 1, 2, 3, 4, 6, 8, 9 & 10 and 5 or 7 of EQIs and at least 4 of the DQIs • Acceptable = must meet 1, 2, 3, 4, 6, 8, 9 & 10 and 5 or 7 of EQIs and at least 1 	<ul style="list-style-type: none"> • 3 high or acceptable studies • Acceptable = meets all QIs except 2, 11, & one of 17-20 • 1-2 independent research teams • Must demonstrate a 	<ul style="list-style-type: none"> • 2 a priori (planned, hypothesis stated) studies with consistent significant correlations between predictor and outcome • Can include 	<ul style="list-style-type: none"> • Other comprehensive or systematic literature reviews which describe search methods but do not calculate ES or PND • If QI study; majority of articles reviewed were summarized as acceptable quality

	of the DQIs <ul style="list-style-type: none"> • Must calculate effect size or report data that allows for calculation 	functional relationship	<i>exploratory</i> studies only when paired with <i>a priori</i> significant correlations <ul style="list-style-type: none"> • Must include effect size calculations or the data to calculate effect size 	
Potential (needs additional research)	<ul style="list-style-type: none"> • 1 acceptable quality • Acceptable = must meet 1, 2, 3, 4, 6, 8, 9 & 10 and 5 or 7 of EQIs and at least 1 of the DQIs • Must calculate effect size or report data that allows for calculation 	<ul style="list-style-type: none"> • 2 high or acceptable studies • Acceptable = meets all QIs except 2, 11, & one of 17-20 • 1-2 independent research teams Must demonstrate a functional relationship	<ul style="list-style-type: none"> • 1 a priori (planned, hypothesis stated) study • Two or more exploratory (no specific hypothesis) studies with significant correlations between predictor and outcome 	NA
Low	Descriptive studies, case study analyses that infer causality, program evaluations that do not meet the criteria for strong or moderate evidence of causal inference, and expert opinion articles describing a practice			

EQI=Essential Quality Indicators; DQI=Desirable Quality Indicators; QI=Quality Indicators; ES= Effect Size; PND=Percent of Non-overlapping Data
 For more information on determining levels of evidence for the current literature review, contact NSTTAC staff chfowler@uncc.edu or 704-687-8606.