

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

	<ul style="list-style-type: none"> <li>or 7 of EQIs and at least 1 of the DQIs</li> <li>Must calculate effect size or report data that allows for calculation</li> </ul>	<ul style="list-style-type: none"> <li>Must demonstrate a functional relationship</li> </ul>	<ul style="list-style-type: none"> <li>Can include <i>exploratory</i> studies only when paired with <i>a priori</i> significant correlations</li> <li>Must include effect size calculations or the data to calculate effect size</li> </ul>	
<p><b>Potential</b> (needs additional research)</p>	<ul style="list-style-type: none"> <li>1 acceptable quality</li> <li>Acceptable = must meet 1, 2, 3, 4, 6, 8, 9 &amp; 10 and 5 or 7 of EQIs and at least 1 of the DQIs</li> <li>Must calculate effect size or report data that allows for calculation</li> </ul>	<ul style="list-style-type: none"> <li>1-2 high or acceptable studies</li> <li>Acceptable = meets all QIs except 2, 11, &amp; one of 17-20</li> <li>1-2 independent research teams</li> </ul> <p>Must demonstrate a functional relationship</p>	<ul style="list-style-type: none"> <li>1 a priori (planned, hypothesis stated) study</li> <li>Two or more exploratory (no specific hypothesis) studies with significant correlations between predictor and outcome</li> </ul>	NA
<p><b>Low</b></p>	<p>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</p>			

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](mailto:chfowler@uncc.edu) or 704-687-8606.