



The Seven-Level Outcomes Model¹

CE Outcomes Levels	Value and Limitations
<p>Level 1 – Participation Involves registration data</p>	<ul style="list-style-type: none"> Tracks demographic information and participation No insights into the value of the activity and its impact on learners
<p>Level 2 – Satisfaction Involves participant evaluation questions</p>	<ul style="list-style-type: none"> Measures variables related to faculty, instructional design, implementation, and subject matter Provides limited value in describing the impact of the learning activity
<p>Level 3a – Learning: Declarative Knowledge (knows) Includes post-tests</p>	<ul style="list-style-type: none"> Participants are tested based on the learning objectives In the absence of a pre-test, there is no guarantee that the learning occurred as a result of the activity
<p>Level 3a – Learning: Procedural Knowledge (knows how) Includes pre-/post-tests, case based assessment</p>	<ul style="list-style-type: none"> Provides immediate feedback on what learning (knowledge, attitudes, skills) has occurred at the time of a learner’s participation in an activity May not necessarily predict retention of the learning or change in performance
<p>Level 4 – Learning: Competence (shows how) Includes case based-assessment and commitment to change measures</p>	<ul style="list-style-type: none"> Measures application of learning to practice in educational setting Intent to change has high correlation with actual behavior change Learning may or may not lead to actual behavior change
<p>Level 5 – Performance (does) Follow-up assessment of practice change involving post-activity surveys, and quality and utilization measures, including chart reviews, electronic health records, health plan data</p>	<ul style="list-style-type: none"> Measures whether the performance changes identified by learners at the time of the activity were made Provides rich information about intended as well as unintended consequences of CME Post-activity surveys tend to be subjective. However, in absence of actual observation of performance in practice, this information serves as a surrogate marker

	<p>that is indicative of actual change.</p> <ul style="list-style-type: none"> Limits of objective measures include resource intensive (chart reviews), lack of standardization and problem with translating measures to computer language (EHRs), and May be difficult to distinguish learners' data in the context of a large practice group (health plan data)
<p>Level 6 – Patient Health Assesses change in patient health status using actual patient data</p>	<ul style="list-style-type: none"> Tracks net effect of practice change on target populations May take long time periods to reflect change in health status Change may be hard to measure or obscured by co-morbidities
<p>Level 7 – Community Health Assesses progress toward ultimate goal of improved community/population health</p>	<ul style="list-style-type: none"> Tracks net effect of practice change on target populations May take long time periods to reflect change in health status Change may be hard to measure or obscured by co-morbidity

- Based upon: Moore DE Jr, Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. *J Contin Educ Health Prof.* 2009;29(1):1-15.