

Chapter PI 11
APPENDIX A
Regression Formula for Calculating Significant Discrepancy Scores

Information needed for Calculation:

IQ/Ability Score = _____ SD of IQ/Cognitive Test = _____(SDi)
 Achievement Score = _____ SD of Achievement Test = _____(SDa)
 Correlation between tests = _____0._____(r)*

Formula:

Expected Achievement = (SDa/SDi)r(IQ-100)+100 = _____

Discrepancy = Expected Achievement – Obtained Achievement Score =

SD Discrepancy = $SDa \sqrt{1-r^2}$ =

Cut-off:

Discrepancy / SD Discrepancy =

If number is greater than 1.75, there is a significant discrepancy between achievement and ability scores

* If correlation between tests is unknown, use .62

When the test publisher provides tables for significant differences between ability and achievement scores (such as with the Weschler Intelligence Scale for Children– 3 and the Weschler Individual Achievement Test), these tables may be used in lieu of this formula. Cut-offs should be derived using a 1.75 Standard Error of Estimate (SEe) criterion so that the difference between expected and obtained scores in the bottom 4% of the distribution meet the standard for a significant discrepancy (i.e. 1.75 SEe units below the expected score).