
MEMORANDUM

TO: INDIANA STATE BOARD OF EDUCATION
FROM: INDIANA TECHNICAL ADVISORY COMMITTEE
SUBJECT: ISTAR
DATE: MAY 25, 2016
CC: MICHELE WALKER, CYNTHIA ROACH

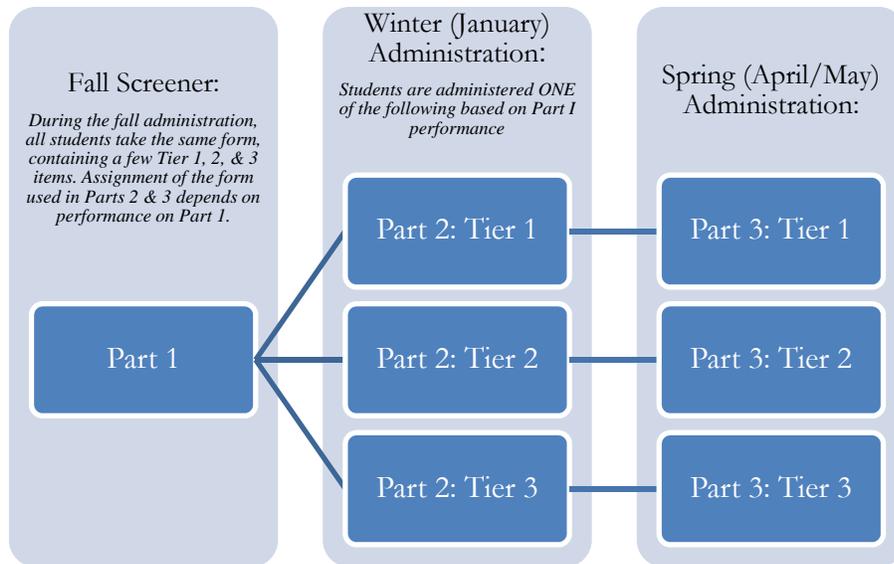
ISTAR is Indiana’s alternate assessment program for students with significant cognitive disabilities. ISTAR is administered in grades 3 through 8 and 10 in English Language Arts (ELA) and Mathematics. It is also administered in grades 4, 6, and 10 for Science, and grades 5 and 7 for Social Studies.

The ISTAR 2015-16 was developed by Questar and administered for the first time in the 2015-16 school year.

This memo summarizes recent TAC discussions regarding the ISTAR, including (1) the 2016 test design; (2) the proposed 2017 design; and (3) the proposed 2016 standard setting.

2016 Test Design

The figure below shows the administration design of ISTAR created by Questar. The ISTAR is administered in three parts: Part 1 in early fall, Part 2 early winter, and Part 3 in spring. Items for the ISTAR are developed to address differing levels of difficulty/complexity: Tier 1 items are the easiest items; Tier 2 items are more difficult than Tier 1 items; Tier 3 items are the most challenging.



Part 1 of the ISTAR (the early fall administration) is a wide range “screener” assessment; it consists of items from all three Tiers that span a wide range of difficulty. The purpose of the Part 1 screener is to obtain the best possible estimate of ability and appropriate instructional and assessment level for each eligible student. Parts 2 and 3 of the ISTAR (administered mid-year and end-of-year) contain Tiers of items that are most appropriate for each student,

based on his/her performance on Part 1. A student's overall end of year score and performance level is based upon his/her *combined* performance on Parts 2 and 3.

A characteristic of this design is that the three tiers differ systematically and intentionally in their difficulty. Tier 3 items are more challenging than Tier 2 items, which in turn are more challenging than Tier 1 items. Thus, students taking the Tier 3 ISTAR test, for example, are given harder items than those students taking the Tier 2 or Tier 1 tests. Unless these differences are taken into account, a student getting 70% of the possible points on the Tier 3 items would appear to be performing worse than a student getting 80% of the possible points on the Tier 2 items, when that may not be the case.

To take this into account, the three different Tiers of ISTAR items need to be placed onto a common score scale. One way to do this is to administer a small set of common Tier 1, 2 and 3 items to all students during Parts 2 and 3 of the test. This design is known in psychometrics as a common-items non-equivalent group (CINEG) linking design, and it is the design that the TAC recommends as the preferred and most defensible way to create a fair and comparable scale for the ISTAR.

Another psychometrically appropriate approach is called a "common person" design. Whereas the CINEG design uses common items administered to different samples of test takers, the common persons design uses different items administered to the same sample of the examinees. For the ISTAR application, however, the TAC does not consider this to be the most appropriate approach because the common persons design assumes that students do not grow over the 4-5 month period between Part 1 and 2 of the test. We believe that the CINEG design represents the most defensible approach to linking the ISTAR.

2016 Score Reporting

The TAC recommendation is to not report scores from the ISTAR 2015-16 school year for accountability purposes until a design can be implemented to ensure comparability across Parts 2 and 3 and across years. In the meantime, Questar has been asked to propose a design to produce individual student reports that provide stakeholders with educationally useful summaries of student performance.

2017 Test Design

Questar has also been asked to propose a design for the 2016-2017 ISTAR administrations that supports the construction of a meaningful common test scale that results in scores that are comparable across different students each year, as well as different years. This design is currently under TAC review.

2016 Standard Setting

In terms of standard setting for 2015-16, Questar has proposed a design for the TAC's consideration. The plan will be reviewed by the TAC at the next TAC meeting, to be held on June 2-3, 2016. The TAC will discuss first whether or not there should be a standard setting, given the questions still outstanding relevant to comparability across years, and the proposed 2016-2017 ISTAR design. At this point, it may be prudent to conduct a standard setting in 2016-2017 when a common score scale is in place for the ISTAR. This would have the advantage of obviating the need to conduct standard settings two years in a row.