Responses to Questions

of the Iowa Assessment Task Force

submitted by
Iowa Testing Programs
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Part I – Questions about Iowa Testing Programs and the Next Generation Iowa Assessments (NGIAs)

1. It is unclear in the initial submission and follow-up information whether depth of knowledge levels and relative balance are specified in the test blueprint or evaluated after item development. Please clarify.

Depth of knowledge (DOK) levels and the relative balance of these levels are included in the test blueprint and guide the development of items as well as the assembly of the final test forms. The final test blueprint will include a complete crossing of item type, content coverage, text type and complexity, and depth of knowledge level for each test at each grade level. The *NGIA* will use Webb's framework to report information at the DOK level.

The ongoing *NGIA* item development process continues to use Webb's depth of knowledge categories to classify individual items during the initial item writing. Subsequent reviews of the items during forms assembly, including those of current Iowa educators, are conducted to verify the appropriateness of the assigned DOK.

2. Task force members wanted to know how Iowa Testing might work with the state to generate new standards-based proficiency definitions and cut points.

Iowa Testing Programs recommends that the Iowa Department of Education (DE) establish policy-based performance standards on the *NGIA*. A variety of methods can be used to approach this task, but the ultimate method chosen needs to reflect best practice established by the recently released 2014 *Standards for Educational and Psychological Testing* to satisfy the requirements of federal accountability, which include links to previously established proficiency benchmarks for evaluation of impact. ITP intends to work collaboratively with the Iowa DE in a mutually agreed upon capacity to generate proficiency definitions and cut scores based on the Iowa Core. ITP is prepared to assume any role in the best interests of the state, ranging from full design and implementation of a standard setting procedure, to consultation and technical support, to simply providing materials and data for impact analyses.

3. Task force members had some questions about accommodations. The submitted materials indicated that IEP and 504 teams define accommodations. Given the potential for the NGIA to be online, please describe any built in accommodation supports. Please describe how Braille and/or large print are implemented on the operational test, practice items and/or sample tests.

ITP believes that IEP teams and educators should make decisions about accommodations. These teams of educators provide the appropriate evidence for the need for accommodations and document this evidence in the IEP or 504 plan.

Based on ITP's past experiences, the accommodations most frequently recommended by IEP teams have been built into the online version of the *NGIA.*   Examples of such accommodations include:

- Accessibility - Zoom text
- Accessibility - Color contrast
- Cognitive and engagement supports, such as answer masking
- Visual Support – verbal descriptions of graphics
- Visual Support – line readers
- Audio supports, such as text-to-speech and verbal descriptions of graphics
- Administrative controls allowing appropriate extended time configurations

Braille and large-print versions of the operational *NGIA* will be made available to Iowa schools for administration to students. Versions of the practice/sample tests will be provided as downloadable pdfs, which Iowa schools may reproduce as needed to share with their students. ITP will also continue to work with Iowa educators who have asked for (and received) permission to reproduce tests into other media/ formats for students with disabilities (e.g. a Braille terminal or refreshable Braille display).

4. Several support documents linked in the submissions appear to live inside the password-protected part of the Iowa Testing Program website. Task force members were unable to access or review these materials. Please provide access appropriately for the Task Force members or share electronic copies representing the content that is password protected.

All documents linked in the submissions have been placed in an electronic file and are being submitted with this response. A complete list of the filenames and titles for all document is also included in the Appendix to this response.

5. The proposal indicates availability of online and paper-pencil versions of the NGIA. Please describe the plans for continued availability of the paper-pencil version of the assessments.

The *NGIA* will be offered in both computer-based and paper-based administration formats. The paper-based version of the *NGIA*s will be available in all grades and content areas on an ongoing basis. There are no plans to phase out the paper-based program over time, unless this were to be mandated by an administrative policy of the USED or Iowa DE, for example, to migrate all summative assessment for accountability to computer-based testing.

6. Members of the Task Force have seen the alignment study published in October 2013. They will be interested in your response to this study.

ITP's response to the alignment study was described in its initial submission of information to the Task Force and in a publicly available document, available at https://itp.education.uiowa.edu/documents/Alignment_Q_and_A.pdf, which can also be found in the electronic file of supporting documents provided to the Task Force.

Major concerns have been raised in ITP's response about the validity of the results of the DRC-conducted alignment study, but three points are most important for the Assessment Task Force to understand:

> (1) The October 2013 report did not align the proposed *NGIA*. It aligned a transitional form of the *Iowa Assessments* that was introduced by agreement with the Iowa DE as an early, first step in moving toward a fully aligned and balanced assessment system.

> (2) Any concerns in the report about specific alignment of the transitional form to the Iowa Core have been addressed in the design of the *NGIA*, particularly in the area of overlapping items between grades. These do not exist in the *NGIA* design.

> (3) The alignment study results were uninterpretable given the unacceptable levels of reliability and consistency reported.

Part II – General questions

1. Tell us about the expertise of people involved in test development. Please indicate the experience test developers have had with students with disabilities and English language learners.

As new test materials proceed through the various stages of the test development process, they are reviewed and shaped by individuals with the most appropriate area of expertise for that stage. Iowa Testing Programs greatly values the experiences of

current and former classroom teachers. Iowa teachers comprise the majority of our external item writer pool, and as such they are involved from the very beginning in creating materials that reflect the Iowa Core. Since the development of *NGIA* began in 2011, over 600 Iowa educators have participated in the development, review, alignment and scoring of testing materials and the evaluation of student responses.

ITP's internal content developers draw on decades of classroom teaching experience to inform the writing and editing of test materials. Several times each year, current Iowa teachers convene in review panels to evaluate test materials for content accuracy and clarity of language, alignment to the Iowa Core, DOK classifications, and other key attributes. The incorporation of feedback from current Iowa teachers in the test materials that will make up the *NGIA* is a critical step in producing test forms that are appropriate for measuring what Iowa students know and can do with respect to the Iowa Core.

ITP supports accessibility for all students who will take the *NGIA*. ITP's development process supports accessibility by incorporating key elements of Universal Design practices. Content developers are trained to follow all accessibility guidelines as outlined in the *Standards for Educational and Psychological Testing (2014)*. Moreover, early in the forms construction process ITP will conduct external reviews of accessibility for both computer- and paper-based *NGIA* forms such as was performed on previous Iowa test forms by the National Center on Educational Outcomes at the University of Minnesota, an organization which "provide(s) national leadership in designing and building educational assessments and accountability systems that appropriately monitor educational results for all students, including students with disabilities and English Language Learners." (NCEO website, http://www.cehd.umn.edu/nceo/). Finally, all assembled forms are reviewed for sensitivity issues with respect to gender, language accessibility and racial/ethnic considerations.

2. Because the proposed assessment is not yet fully operational, we understand that some requested information, such as reliability and validity data, was not available during the first rounds of the Task Force reviews. Please provide the Task Force with information about the estimated timeline for the availability of such data and any preliminary results you have available at this time.

The *NGIA*s have been under development for approximately three years. During this time, field testing has produced data on item quality that will be used in the assembly of forms and the estimation of internal technical properties including test characteristic curves, test information functions, and reliability coefficients. Given historical data and design specifications on test length, ITP is certain that reliability coefficients for the *NGIA*s will equal or exceed the levels attained with previous editions and forms of ITP-designed assessments.

A significant portion of the validity evidence for the *NGIA*s derives from the design and development process ITP is using to create a standards-based assessment that supports criterion-referenced interpretations that describe a student's level of performance.   ITP's response to a previous question addressed the role of the test specifications and test form blueprints in the validity argument with respect to both content standards and depth of knowledge. This component of test validity is built in to the design from the beginning. External validity of the *NGIA*s with respect to college and career readiness, for example, is being addressed during the design and development phase by psychometric research to maintain the Iowa Standard Score scale and the attendant score interpretations relative to ACT benchmarks.

As described in the recently released *Standards for Educational and Psychological Testing*, validation of assessments results is an ongoing activity that requires collaboration between test developers and test users. ITP is committed to a partnership with the Iowa DE and Iowa schools that focuses on annual evaluation of evidence pertaining to the validity of inferences about proficiency, growth, college and career readiness, and improvement of teaching and learning. These are the four cornerstones of the anticipated interpretations of Iowa's fully aligned, summative assessment. To address these concerns on an ongoing basis, after the first administration of the *NGIA* in Spring, 2017, ITP will prepare a full test analysis report that summarizes statewide student performance in relevant metrics, technical characteristics of the assessment, and relationships with external measures such as ACT scores and other student performance indicators in the EdInsight™ database. This report will be the first in an annual series that will provide detailed input for the Condition of Education report issued each fall by the Iowa DE.

3. How will you ensure ongoing review of the alignment of items to the Common Core State Standards, and the development of new items if alignment is not strong? What can you do to add items to cover components of the Iowa Core not covered in the Common Core? How much would this cost? How would additional Iowa-specific items be incorporated into the assessment?

For each form of the *NGIA*, the final assembled test will be compared to the test blueprint and the appropriate alignment statistics will be computed. For range of knowledge, Webb requires that for a test to be considered aligned, 50 percent of the targets *within each reportable category* must be measured by at least one item. For balance of representation, the tests will generate this index at the reportable levels of domain, depth of knowledge, and claims. These criteria will be used to evaluate the final, assembled forms of the *NGIA*.

ITP agrees with the position of the Smarter Balanced Assessment Consortium that "ideally, students should, on average, receive test forms that are highly aligned with the

test blueprint" (SBAC, 2012, p. 13), however, we would take out the words "on average" from this statement. The *NGIA* will focus attention on the alignment between test blueprints and the test form itself and work with stakeholders to monitor alignment and make desired modifications as needed (see SBAC, 2012, available at http://www.smarterbalanced.org/wordpress/wp-content/uploads/2012/05/TaskItemSpecifications/ItemSpecifications/GeneralItemSpecifications.pdf for additional information).

The concern about the alignment of test forms to content standards was addressed recently by Joe Willhoft, the executive director of SBAC, who said that once its alignment studies are complete, the consortium will have time to revise parts of the test that are not well enough aligned before administering it in the spring. Even still, he argued, alignment is best thought of as ongoing, explaining that, "without a doubt, there are some aspects of this alignment work that will be tighter than others. … It's never something that's all done, it's perfect, and we don't have any more work to do. Each year, we expect to be refining it." (*Education Week*, September 3, 2014, and available at http://www.edweek.org/ew/articles/2014/09/03/03assessment.h34.html?tkn=SXTFIGWDZvXFz3Q05SBEoqg3TytJn0C1PRr8&intc=es). ITP agrees that this statement is an accurate reflection of the validation process, with respect to alignment, for every large-scale assessment.

The Iowa Core includes content standards that go beyond the Common Core State Standards adopted by the State Board of Education in 2011. Assessment of these standards can be accommodated in the design of the *NGIA* through customized modules or testlets embedded in the *NGIA* ELA and mathematics assessments. Costs associated with these additional assessment materials depend on the proportion of the total number of items added relative to the core *NGIA*. The Iowa DE would incur only the direct costs for administration and scoring, as development costs associated with such an effort would be assumed by ITP. A rough guideline to consider in this context suggests that if the additional coverage represents 15 percent of the total content there would be a 15 percent cost increment for administration and scoring only.

4. What is your plan for continuously updating items? How would we have opportunities to impact updates of the assessment over time?

On the content development side, ITP expects to continue its use of Iowa educators in item development, panel reviews for alignment and quality, and sensitivity reviews for appropriateness and Universal Design. The Iowa DE can be an integral part of these processes to whatever extent is considered desirable and feasible. The intent is to support the NGIA with a process of continuous item development and continuous refreshing of content.

On the administrative side, ITP expects to continue its annual field testing programs. In computer-based administrations, field test items can be seeded into the stream of items seen by examinees in either an embedded or external design. In the paper-based administrations, ITP randomly assigns a grade-appropriate field-test booklet to each examinee. Both approaches yield item-level statistics based on representative samples of students, and the data from this design can be use to introduce new content, refine alignments, and enhance validity for score interpretations for Iowa students. Adequate field test participation is critical in this regard.

5. Please provide a complete Table of Specifications for the proposed assessment, including content and depth of knowledge specifications.

The tables below provide a summary of the planned test specifications for ELA and mathematics. The item types include selected response (SR), constructed-response (CR) and technology enhanced (TE) and the numbers in the table represent the number of items planned for each type. The depth of knowledge (DOK) specifications are also provided in these tables. DOK is presented as the percentage of points represented by each level. The definition of these levels is provided in the supporting documentation. The definition of DOK level 4 requires activities that facilitate teaming and collaboration, designing and researching, and the creation of concrete tangible products. ITP recommends that DOK level 4 items be controlled at the local level where they are an integrated part of the classroom instruction. Local decision making can also make the most appropriate placement of these requirements into the current curriculum.

Number of Items for *NGIA* ELA/Literacy Assessment by Item Type									
Test	**ELA/Literacy Domains**	**Item Type**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**HS**
Reading	Integration of Knowledge and Ideas	SR	6-8	6-8	6-8	7-9	7-9	7-9	6-8
		CR	1-3	1-3	1-3	1-3	1-3	1-3	1-3
		TE	1-3	1-3	1-3	1-3	1-3	1-3	1-3
	Craft and Structure	SR	10-12	10-12	10-12	11-13	11-13	11-13	10-12
		CR	1-3	1-3	1-3	1-3	1-3	1-3	1-3
		TE	1-2	1-2	1-2	1-2	1-2	1-2	1-2
	Key Ideas and Details	SR	12-14	12-14	12-14	13-15	13-15	13-15	13-15
		CR	1-3	1-3	1-3	1-3	1-3	1-3	1-3
		TE	1-2	1-2	1-2	1-2	1-2	1-2	1-2
Language	Conventions of Standard English / Knowledge of Language	SR	20-24	20-24	22-26	22-26	24-28	24-28	28-32
		TE	3-5	3-5	5-7	5-7	6-8	6-8	6-8
	Vocabulary Acquisition and Usage	SR	10-12	10-12	10-12	11-13	11-13	12-14	14-16
		TE	2-3	2-3	2-3	2-3	2-3	3-4	3-4
Writing		ER	1	1	1	1	1	1	1
DOK	Level 1 (%)		30	30	30	30	30	30	30
	Level 2 (%)		40	40	40	40	40	40	40
	Level 3 (%)		40	40	40	40	40	40	40

Number of Items for *NGIA* Mathematics Assessment by Item Type								
Math Domains	**Item Type**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**HS**
Operations and Algebraic Thinking	SR	6-8	7-9	8-10				TBD
	CR	1-2	1-2	1-2				
	TE	1-2	1-2	0-1				
Number and Operations in Base Ten	SR	6-8	7-9	8-10				
	CR	1-2	1-2	1-2				
	TE	1-2	1-2	1-2				
Number and Operations – Fractions	SR	6-8	7-9	8-10				
	CR	1-2	1-2	1-2				
	TE	1-2	1-2	1-2				
Measurement and Data	SR	6-8	7-9	8-10				
	CR	1-2	1-2	1-2				
	TE	1-2	1-2	1-2				
Geometry	SR	6-8	7-9	8-10	9-11	10-12	11-13	TBD
	CR	1-2	1-2	1-2	1-2	1-2	1-2	
	TE	1-2	1-2	1-2	1-2	1-2	1-2	
Ratios and Proportional Relationships	SR				9-11	10-12		
	CR				1-2	1-2		
	TE				1-2	1-2		
The Number System (Number and Quantity)	SR				9-11	10-12	11-13	TBD
	CR				1-2	1-2	1-2	
	TE				1-2	1-2	1-2	
Expressions and Equations	SR				9-11	10-12	11-13	TBD
	CR				1-2	1-2	1-2	
	TE				1-2	1-2	1-2	
Statistics and Probability	SR				9-11	10-12	11-13	TBD
	CR				1-2	1-2	1-2	
	TE				1-2	1-2	1-2	
Functions	SR						11-13	TBD
	CR						1-2	
	TE						1-2	
DOK Level 1 (%)		30	30	30	30	30	30	30
DOK Level 2 (%)		40	40	40	40	40	40	40
DOK Level 3 (%)		40	40	40	40	40	40	40

6. Please provide a description of how you have chosen to address the balance and compromise between completeness of content coverage, full depth of knowledge coverage, and a manageable length of test.

Balancing these competing aspects for the summative assessment is a challenge for both test and item design. It simply can't be done if the approach to item development is overly granular in the sense that any given item measures one and only one standard in the Iowa Core. Content standards in the Iowa Core are organized in domains that in the *NGIA* are the reportable diagnostic scores, one level below the total test score. A high quality test item, reflecting appropriate aspects of critical thinking and depth of knowledge *in the domain* should tap what students know and can do with respect to more than one specific standard in the domain. Items designed in this way are appropriate for a summative assessment that reflects performance at the end of the school year.

In addition to content coverage, the *NGIA* has also been designed to provide indicators of readiness and growth. These two key aspects are also taken into account as the balance between content and time is managed. The test design must also achieve an acceptable level of reliability (for all reported scores) while being manageable for most students.

Most aspects of these assessment considerations are addressed through research events (i.e., special studies, pilot administrations, field tests) designed to address these various issues. For example, online pilot tests capture latency data to better understand the amount of time required to respond to new item types (technology-enhanced and constructed-response items) to better gauge the time requirements. Draft forms of the assessments will be used to estimate reliability for the total test and reportable scores. As provided in the past for the *Iowa Assessments*, research designed to ensure the stability of growth scores is an integral part of this process. Research will be monitored across multiple years of matched cohorts to ensure that the *NGIA* design continues to support growth indicators.

7. Which grades and subjects were piloted and/or field tested in Iowa? What was the experience of Iowans during the initial testing? Please note we intend to interview people who participated in this testing and may have additional questions as a result. What have you learned during the pilot and/or field tests? What has changed as a result?

How did students with disabilities experience the assessment during pilot and/or field testing? What changes did you make as a result? How did English language learners

experience the assessment during pilot and/or field testing? What changes did you make as a result?

All grades and subjects were piloted and field tested in the state of Iowa over the past three years. The pilot test activities allow an initial exposure of various item types to better understand how accessible the items are for various students. Pilot testing is especially valuable for new item types. The field test allows an evaluation of the quality of the items. Input from the pilot administrations is used to refine the overall test specifications including the balance of item types and length of time needed. Input from the field test administrations is used to select items that are eligible for inclusion in an operational form of the assessment.

Iowa educators are instructed to administer the field test items to all students under the conditions described in the administration directions. When administering the field test items to students with disabilities, educators were directed to offer accommodations identified in an IEP/ 504 plan as appropriate for use in standardized testing.

8. Please bring a sample report and show us how a group of teachers would use this report. We would like for you to show us how assessment results can influence local decision making.

NGIA reports provide high-quality and reliable information matched to educator and student need. The reports allow the monitoring of progress on an annual basis to inform decisions about changes in instruction or goals, while meeting the needs of state and federal reporting.

NGIA reports are being prepared to provide individual and group (classroom, building, district) level information as well as item-level information.   All reports will provide information at the total test level as well at the domain and DOK levels. In addition, information providing indicators of a student's proficiency and readiness will be provided. On-demand, online reporting at the individual and group levels will continue to be supported by ITP at no cost to the districts or the state.

Local decision making can be informed at many different levels using results from the *NGIA.*   The table below highlights some of the needs that have been validated by ITP as appropriate uses of data at the local level.

A sample report will be shared and discussed at the interview with the Task Force on September 17.

Need	Information for Local Decision Making	Sample Questions Addressed at the Local Level
Measure growth	Growth is compared against growth targets determined locally. Growth is compared against expected growth targets determined through national research. Growth goals are adjusted based on year-to-year analysis. Educators have immediate access to all historical and current scores for a student or a group of students.	What percent of students made their growth goals? What percent of students exceeded their growth goals? What percent of students from English Language Learning programs met or exceeded their growth goals? How did our school's growth compare to that of the district?
Track readiness	Readiness indicators inform goals. Readiness progress is tracked against readiness targets determined locally.	What percent of students are on-track to be college and career ready? How did this percent change from previous years?
Inform instruction	Domain scores inform discussions about Iowa Core emphasis and instruction. Reports provide reporting at the depth of knowledge level. Educators track progress of cohorts at the domain level, set goals for future cohorts. *NGIA* results are used in conjunction with local progress monitoring results to have a more complete profile of a student.	How are local students performing on DOK level 3 questions? How are local students performing on Iowa Core domains in ELA, mathematics, science and social studies? What percent of domain-specific questions are they answering correctly? How does this vary across grade levels? How can instruction be differentiated to address needs?
Compare	Results inform local administrators and board members about points of comparison. Results allow for a comparison of classes within a grade. Results allow for a comparison of schools within a district and districts within the state.	How do the elementary schools in a local district compare to that of the state? How is the growth of our students compared to that of like districts?
Report for accountability	Results track proficiency as mandated by the reauthorized ESEA. Results track progress of cohorts at the domain level and can be used to set goals for future cohorts.	What percent of students are proficient at the local level? How does this percent compare to last year? How does this percent compare to the state? Or to districts like ours?
Place students	Results can be used to make appropriate placement decisions of students into special programs (for example, intervention and extended learning programs)	Are students placed into intervention programs making the appropriate progress?
Evaluate programs	Results can be used to evaluate the annual or sustained effects of programs.	Is the distribution of instructional time uniform throughout the district and having the desired impact on achievement? Is the new math program in the elementary buildings addressing weaknesses in key domains of mathematics?

9. What ongoing resources are available to districts? (e.g., professional development module)

Iowa Testing Programs is a research, development and outreach unit of the University of Iowa's College of Education. As such, its mission is to serve the assessment needs of the Iowa DE and the public and private schools that make up Iowa's education system. ITP has a full staff of specialists in educational measurement, content development, and assessment system operations. These professionals are on call throughout the year to provide consultation and support to school leaders, and they will continue do so at no cost to the state or district. The table below identifies a number of professional development services currently offered within the state.

As part of the *NGIA* program, ITP will organize and lead a series of regional workshops to introduce the *NGIA*s to Iowa school leaders and assist them in preparing their staffs for substantive and administrative changes in the state's new assessment system.

Annual Workshops	Annual workshops provided to AEA, district or school staff: Changes to assessments Interpretation of results Online training eITP training
Customized Professional Development	Direct, customized trainings to AEA, district or school staff: Interpretation of results Alignment to local curriculum Local growth interpretations
Documents	Accessible documents via ITP's website include: Training materials Interpretive Guides Research Guides and Bulletins Powerpoint Presentations All information is available locally and can be copied to meet the local needs
Webinars	Support on topics that are effectively addressed at a distance: Data management Calculation of local norms Interpretation and calculation of growth goals Using eITP to monitor growth and readiness

Appendix

Referenced Documents in Response to RFI ASTF0002_ITP_071014.docx

1. Fairness
   a. Question 1 (Statistical evidence for fairness {DIF})
      Referenced document:
      https://itp.education.uiowa.edu/ia/documents/Fairness_Report_for_the_Iowa_Assessment.pdf
      Title in folder: Fairness_Report_for_the_Iowa_Assessment.pdf
   b. Question 2 (Fairness during development {Universal Design})
      Referenced document:
      https://itp.education.uiowa.edu/ia/documents/Fairness_Report_for_the_Iowa_Assessment.pdf
      Title in folder: Fairness_Report_for_the_Iowa_Assessment.pdf
   c. Question 3.a (Fairness during administration {Accommodations})
      Referenced document (pages 9 and 10):
      https://itp.education.uiowa.edu/ia/documents/Technical-Manual-Form-E.pdf
      Title in folder: Technical-Manual-Form-E.pdf
   d. Question 3.b (Standardized directions)
      Referenced document:
      https://itp.education.uiowa.edu/ia/documents/PlanningImplementationGuide.pdf
      Title in folder: Planning-Implementation-Guide.pdf

2. Availability
   a. Question 4 (Grades covered)
      Referenced document:
      https://itp.education.uiowa.edu/ia/documents/Iowa_Form_E_F_Scope_and_Sequence.pdf
      Title in folder: Iowa_Form_E-F_Scope_and_Sequence.pdf

3. Describes Achievement
   a. Question 6 (Accurately describes student achievement)
      Referenced documents:
      https://itp.education.uiowa.edu/ia/documents/IA_Interpreting_Reports.pdf
      Title in folder: IA_Interpreting_Reports.pdf

      https://itp.education.uiowa.edu/ia/IndividualGrowthProfileTutorial.aspx
      Title in folder: Iowa Testing Programs – eITP.htm
      https://itp.education.uiowa.edu/ia/GroupGrowthProfileTutorial.aspx
      Title in folder: Iowa Testing Programs – eITP_Group.htm

      b. Question 7 (Accurately describes growth)
         Referenced documents:
         https://itp.education.uiowa.edu/ia/documents/Measuring-Growth-with-the-Iowa-Assessments.pdf
         Title in folder: Measuring-Growth-with-the-Iowa-Assessments.pdf
         https://itp.education.uiowa.edu/ia/documents/Iowa_Growth_Model.pdf
         Title in folder: Iowa_Growth_Model.pdf
         https://itp.education.uiowa.edu/ia/documents/Establishing%20Validity%20Evidence%20to%20Assess%20College%20Readiness%20through%20a%20Vertical%20Scale.pdf
         Title in folder: Establishing Validity Evidence to Assess College Readiness through a Vertical Scale.pdf

4. Validity
      a. Question 8 (Criterion validity coefficients)
         Referenced documents:
         For ACT/Iowa Assessment correlation, see page 12 of this research report:
         https://itp.education.uiowa.edu/ia/documents/K-12%20Assessments%20and%20College%20Readiness.pdf
         Title in folder: K-12 Assessments and College Readiness.pdf
         For consistency across groups of students, see page 8 of this research report:
         https://itp.education.uiowa.edu/ia/documents/Evaluating-College-Readiness-for-English-Language-Learners-and-Hispanic-and-Asian-Students.pdf
         Title in folder: Evaluating-College-Readiness-for-English-Language-Learners-and-Hispanic-and-Asian-Students.pdf
         For relationship with CogAT, see pages 127-144 of:
         https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf
         Title in folder: ITBS-Research-Guide.pdf
         For relationship with MAP, see page 10 of:
         http://www.nwea.org/sites/www.nwea.org/files/resources/Iowa%20Linking%20Study%20August%202010.pdf
         Title in folder: Iowa Linking Study August 2010.pdf
      b. Question 9 (Description of methodology indicating quality of validity coefficients)
         Referenced documents:
         For validity evidence on the current assessments, see pages 25-26 and 44-45 of:
         https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf
         Title in folder: ITBS-Research-Guide.pdf

5. Reliability
      a. Question 10 (Internal consistency)
         Referenced document:

For reliability information, see pages 20-29 of:
https://itp.education.uiowa.edu/ia/TechnicalManualFormE.aspx
Title in folder: Technical-Manual-Form-E.pdf

b. Question 11 (Stability over time)
Referenced document:
For test-retest reliability estimates on the current assessment, see page 75:
https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf
Title in folder: ITBS-Research-Guide.pdf

c. Question 13 (Methodology indicating quality of reliability evidence)
Referenced document:
For information on reliability, see pages 63-64, 83-84 and 152:
https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf
Title in folder: ITBS-Research-Guide.pdf

6. Piloted/ Tested in Iowa

7. Alignment
a. Question 16 (Methodology of alignment to domains, standards, and clusters)
Referenced document:
https://itp.education.uiowa.edu/ia/documents/Assessment-Brief-Alignment-Final.pdf
Title in folder: Assessment-Brief-Alignment-Final.pdf

b. Question 19 (Evidence of alignment in DOK)
Referenced document:
https://itp.education.uiowa.edu/ia/documents/IA_Interpreting_Results.pdf
Title in folder: IA_Interpreting_Results.pdf

c. Question 20 (Language Consistent with the Common Core)
Referenced document:
https://itp.education.uiowa.edu/ia/documents/IA_Interpreting_Reports.pdf
Title in folder: IA_Interpreting_Reports.pdf

8. College/ Career
a. Question 21 (Measures progress toward college or career readiness)
Referenced documents:
https://itp.education.uiowa.edu/ia/documents/Assessment-Brief-Readiness-Final.pdf
Title in folder: Assessments-Brief-Readiness-Final.pdf
https://itp.education.uiowa.edu/ia/documents/Establishing%20Validity%20Evidence%20to%20Assess%20College%20Readiness%20through%20a%20Vertical%20Scale.pdf
Title in folder: Establishing Validity Evidence to Assess College Readiness through a Vertical Scale.pdf
https://itp.education.uiowa.edu/ia/documents/Evaluating-College-Readiness-for-English-Language-Learners-and-Hispanic-and-Asian-

Students.pdf
Title in folder: Evaluating-College-Readiness-for-English-Language-Learners-and-Hispanic-and-Asian-Students.pdf

9. Technical Supports
    a. Question 22 (Training on assessments and interpretation of reports)

        Referenced documents:

        Help with importing the student data CD into Excel (video)
        Title in folder: Student Data CD Import – ITP_default.mp4

        Help with calculating proficiency totals using the Iowa Assessments data CD (video)
        Title in folder: Calculating proficiency totals using the Iowa Assessments data CD_default.mp4

        Measure of Student Growth: The Iowa Assessments (Webinar) (Slides only)
        Title in folder: Measure-of-Student-Growth-Iowa-Assessments-Webinar.pdf

        http://link.brightcove.com/services/player/bcpid2147475848001?bckey=AQ~~,AAAAD-nmr5k~,ts6FDV2LlY6mrV9PO2ct6atvRvblZF2A&bctid=3145205546001
        Title: Sound Measure of Student Growth Using the Iowa Assessments Throughout the School Year