Additional Information
In Support of
Response to
Request for Information
ASTF0001

submitted by
Iowa Testing Programs
June 2, 2014

Please direct inquiries to
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THE UNIVERSITY OF IOWA

I T P
Iowa Testing Programs

Assessment Survey Part One

What follows are the specific information requests as defined by the Assessment Task Force.

Iowa Testing Programs (ITP) understands that the Assessment Task Force will be receiving information about assessments that are fully operational, partially developed, and proposed for new development.

Iowa Testing Programs is proposing a new assessment system, the Next Generation Iowa Assessment (NGIA), that is currently under development and prepared to be operational in the state of Iowa in the spring of 2017, as mandated by House File 215. If this timeline should be accelerated or slowed, Iowa Testing Programs will adjust their delivery timelines accordingly.

Given that the proposed assessment is not operational and the information requested below is not available, evidence of ITP's plans to collect the information or complete the requested tasks is provided. In addition, relevant information from the current Iowa Assessments developed and delivered in the state of Iowa is shared. The Standards for Educational and Psychological Testing (1999) will continue to guide the appropriate and crucial research for the new assessment. The Standards will also be used to document all required components of the process and the results.

1. Fairness

Please demonstrate with a summary of practices and evidence, including any references to other documentation, how you assure fairness in your assessments.

Given that the proposed assessment (Next Generation Iowa Assessment) is not operational and the information requested on fairness is not available, evidence of ITP's plans to collect the information or complete the requested tasks is provided. In addition, relevant information from the current Iowa Assessments developed and delivered in the state of Iowa is shared.

1. Statistical evidence related to fairness in the development of the proposed assessment.

Enter summary here:

Differential item functioning (DIF) identifies items that function differently for two groups of examinees with the same total test score. In many cases, one group will be more likely to answer an item correctly on average than another group. These differences might be due to differing levels of knowledge and skills between the groups. For example, if members of one group tend to take more advanced classes or attend higher performing schools than members of another group, then the performance of the two groups might differ on some items. DIF analyses take these group differences into account and help identify items that might unfairly favor one group over another. The items that are identified as potentially unfair by DIF are then presented for additional review. This same process is in place for the *NGIA*.

The statistical analyses of items for DIF are based on variants of the Mantel-Haenszel procedure (Dorans & Holland, 1993). The analysis of items in the final editions of Forms E was conducted with data from the 2010 national standardization sample and data collected annually in the state of Iowa. Specific item-level comparisons of performance were made for groups of males and females, Blacks and Whites, and Hispanics and Whites.

The sampling approach for DIF analysis, which was developed by Coffman and Hoover, is described in Witt, Ankenmann, and Dunbar (1996). For each subtest area and level, samples of students from comparison groups were matched by school building. Specifically, the building-matched sample for each grade level was formed by including, for each school, all students in whichever group constituted the minority for that school and an equal number of randomly selected majority students from the same school. This method of sampling attempts to control for response differences between focal and reference groups related to the influence of school curriculum and environment.

A summary of the results of DIF analyses conducted for the items included in the final edition of Form E can be found at ITP's website. ITP uses the Mantel-Haenszel procedure, which is the statistic described by Holland and Thayer (1988), known as MH D-DIF.[1]

Based on these DIF statistics, items are classified into one of three categories and assigned values of A, B, or C (see Figure 1). Items classified into category A contain negligible DIF, items in category B exhibit slight or moderate DIF, and items in category C have moderate to large values of DIF (Dorans & Holland, 1993).

All test items were included in the DIF study that investigated male/female, Black/White, and Hispanic/White comparisons. The overall percentages of items flagged for DIF in Form E were small and generally balanced across comparison groups. This is the goal of careful attention to content relevance and sensitivity during test development.

Figure 1

DIF Classification Categories

DIF Category	Definition
A (negligible)	Absolute value of the MH D-DIF is not significantly different from zero, or is less than one.

B (slight to moderate)	Absolute value of the MH D-DIF is significantly different from zero but not from one, and is at least one; OR Absolute value of the MH D-DIF is significantly different from one, but is less than 1.5. Values that favor the reference group are classified as "BR" and the focal group as "BF."
C (moderate to large)	Absolute value of the MH D-DIF is significantly different from one, and is at least 1.5. Values that favor the reference group are classified as "BR" and the focal group as "BF."

Enter any links to documents and page references here
https://itp.education.uiowa.edu/ia/documents/Fairness_Report_for_the_Iowa_Assessment.pdf

2. Processes used to ensure fairness during test development (Universal Design)

Enter summary here:

Fairness is a critical consideration during the test development process which ITP has made and continues to make a priority. The work of ensuring fairness begins with the design of the assessment and continues through every stage of the process. To ensure that assessment materials are appropriate and fair for different groups, careful test development procedures are followed. Sensitivity review by content and fairness committees and extensive statistical analysis of the items and tests are conducted.

The principles of universal design for assessments provide guidelines for the test development process intended to ensure that no test takers are unduly disadvantaged owing to a special need, incomplete language mastery, or membership in any demographic group. Universal design in the development of assessment materials involves aspects of presentation in both paper-based and computer-based modes of administration to enhance accessibility and clarity for all examinees. Universal design principles are not intended to make any test easier for a given subgroup, but only to remove the effects of construct-irrelevant variance on test scores. Ease of navigation of test materials; clarity of typeface, graphics, and page layout; and respect for the diversity of the test-taking population in the nature of the materials presented are some examples of universal design principles for assessments.

In developing materials for all previous forms of the *Iowa Assessments*, attention is paid to wording items in contexts accessible to students with a variety of backgrounds and interests. A goal of all test development at ITP is to assemble test materials that reflect the diversity of the test-taking population. Reviewers are given information about the purposes of the tests, the content areas, and cognitive classifications. Reviewers are asked to look for possible racial-ethnic, regional, cultural, or gender biases in the way the item was written or in the information required to answer the question. The reviewers rate items as "probably fair,'' "possibly unfair," or "probably unfair" and comment on the balance of the items and make recommendations for change. Based on these reviews, items identified by the reviewers as problematic are either revised to eliminate objectionable features or eliminated from consideration for the final forms.

An independent, comprehensive universal design review of page layouts, color schemes, and other factors in the design and presentation of materials for the current *Iowa Assessments* was conducted by the National Center of Educational Outcomes (NCEO) at the University of Minnesota. A review panel consisting of experts in

the fields of special education, English language learning, assessment of students with special needs, and education in urban areas produced a report that helped guide final decisions in the publication of the *Iowa Assessments*. Included in this independent review was an evaluation of all visuals for accessibility, including graphic size and composition. Moreover, all graphics were submitted to a specialized computer program that analyzes them for issues associated with colorblindness so that adjustments can be made prior to tests becoming operational.

Enter any links to documents and page references here

A description of the fairness procedures and DIF statistics can be found at:
https://itp.education.uiowa.edu/ia/documents/Fairness_Report_for_the_Iowa_Assessment.pdf

Additional information concerning this topic was shared on pages 13 to 17 of ITP's initial RFI submission (Response to Request for Information, ASTF0001, submitted on November 20, 2013). An electronic copy of this document has been forwarded with this response.

3. How the proposed assessment addresses fairness in administration through:
    a. Accommodations (accessibility)

Enter summary here:

There is no finite list of accommodations that are permitted when using the *Iowa Assessments* or the *NGIA*. Rather, all administration guidelines instruct each school district to apply the state of Iowa policies on IEP or 504 Plans as they related to test administration. The results include students who were administered the assessments using a variety of accommodations and modifications.

For use in the state of Iowa, students' IEP or 504 Plans take precedence and should dictate the conditions under which the current *Iowa Assessments* are given. The following table identifies typical accommodations used within the state of Iowa via IEPs or 504 Plans.

Accommodation	Allowable if specified in students' IEP or 504 Plans
Braille	✓
Large Print	✓
Scribes	✓
Read-aloud (which would include text-to-speech assistive technology, in either hardware or software form)	✓
Extended time	✓
Assistive Technology – Includes: • Amplification equipment • Noise buffers; • Magnifying devices; • Non-calibrated rule or template; • Communication boards or devices;	✓

• Talking calculators; • Speech-to-text software or devices; • Close-captioned or video materials; • Audio file of state-required assessment; • Cranmer Abacus; • Auditory trainer; • Electronic dictionaries; and • Refresher Braille; • Signing avatar; • Word prediction; and • Screen readers.	
Calculators: subjects other than Math Computation	Allowed for all students.
Calculators: Math Computation Test	✓
Manipulatives	✓
Reinforcement and behavioral modification strategy	✓
Interpreters for students with deafness or hearing impairment	✓
Simplified language and oral native language support for LEP students	✓

A national study in 2010 validated the use of accommodations for students who were English language learners and students with special needs. Schools participating in the study were asked to identify all students with those classifications, decide whether they should participate in the assessment, and, if so, determine whether accommodations in testing procedures were needed.

Among students with special needs, nearly all were identified as eligible for special education services and had an Individual Education Program (IEP), an Individual Accommodation Plan (IAP), or a Section 504 Plan. Schools were asked to examine the IEP or other plan for these students, decide whether the students should receive accommodations, and determine the nature of those accommodations.

Schools were told that an accommodation refers to a change in the procedures for administering the assessment and that an accommodation is intended to neutralize, as much as possible, the effect of the student's special needs on the assessment process. Accommodations should not change the *kind* of achievement being measured, but change *how* achievement is measured. If chosen appropriately, an accommodation should provide neither too much nor too little help to the student who receives it.

When accommodations were provided, their use was recorded on each student's answer document by the test administrator. For students whose native language was not English and who had been in an English-only classroom for a limited time, two decisions had to be made prior to administering the assessment. First, was English-language acquisition developed sufficiently to warrant participation, and second, should the assessment involve the use of any particular accommodations? In all instances, the guidelines in place in the school district were to be implemented in making decisions about each student.

The test administrators were told that the use of accommodations with English language learners is intended to allow the measurement of skills and knowledge in the curriculum without significant interference from a limited opportunity to learn English. Those just beginning instruction in English were not likely to be able to answer many questions no matter what types of accommodations were used. For those in the second or third year of instruction in an English as a Second Language (ESL) program, accommodations might be warranted to reduce the effect of limited English proficiency on test performance. Results of this study can be found in the Technical Manual for Form E of the *Iowa Assessments* on pages 9 and 10.

Similar studies will be conducted on the *NGIA.*

Enter any links to documents and page references here
For a description of the validity study concerning accommodations, see pages 9 and 10:
https://itp.education.uiowa.edu/ia/documents/Technical-Manual-Form-E.pdf

b. Standardized directions

Enter summary here:
For the current *Iowa Assessments,* standardized *Directions for Administration* are prepared for each assessment for each grade level. These directions guide the administration of the assessment for all students. Educators also have access to the *Planning and Implementation Guide* to assist all test administrators plan for testing and support the test administration.
ITP would anticipate having similar directions for the *NGIA*, both for the online and the paper/pencil version of the assessments.
Enter any links to documents and page references here
The *Planning and Implementation Guide* can be found at: https://itp.education.uiowa.edu/ia/documents/PlanningImplementationGuide.pdf

c. Practice items

Enter summary here:
Practice tests for the NGIA will be available at each grade and will include all content areas.
For the current *Iowa Assessments*, all Iowa educators have access to practice test materials at no charge. ITP would expand this offering to include all item types in both online and paper forms.
Enter any links to documents and page references here

2. Availability

Please summarize and reference any additional documentation about the availability of your assessments.

4. Grade availability (grades covered)

Enter summary here: The *NGIA* is being developed to cover grades kindergarten through 12th grade. The current *Iowa Assessments* also cover grades kindergarten through 12th grade.
Enter any links to documents and page references here   Evidence of the current *Iowa Assessment* grade availability can be found at: https://itp.education.uiowa.edu/ia/documents/Iowa_Form_E_F_Scope_and_Sequence.pdf

5. Availability in last quarter of the school year

Enter summary here: The *Iowa Assessments* have historically been offered at any time of year.   Iowa Testing Programs is prepared to offer the *NGIA* to all students in the state of Iowa in the last quarter of the academic year as mandated by House File 215.   For consistency in interpretation and use of the results, ITP strongly supports a single-time-of-year administration.
Enter any links to documents and page references here

3. Describes Achievement

Please provide summary and reference to any supporting documents to demonstrate how your assessments accurately describe student achievement.

There are numerous types of and levels of reporting planned to describe student achievement on the NGIA. However, given that the proposed assessment is not operational and the information requested on reliability is not available, evidence of ITP's plans to collect the information or complete the requested tasks is provided. In addition, relevant reporting information from the current Iowa Assessments developed and delivered in the state of Iowa is shared.

6. Accurately describes student achievement

Enter summary here:

A critical mission of ITP is to design and validate reports that are instructionally valuable, are easy to understand by a variety of audiences and are delivered in time to provide useful, actionable data to students, parents and educators.

The *NGIA* will continue to provide information that describes achievement at a variety of different levels, in all grade levels and across a core of all content areas (reading, language, writing, mathematics, science and social studies). Key to this information will be score reports that illustrate a student's progress on the achievement continuum toward college and career readiness. The reports will stress the most important claims and content domains. The various types of achievement descriptors that will be included in the *NGIA* are listed below. All reports will be available in both paper and electronic forms.

Achievement Indicators for *NGIA*

- Claim Scores
- Domain Scores
- Depth of Knowledge Indicators
- Proficiency Levels
- Growth Indicators
- College/Career Readiness Indicators
- Local, State and National Comparisons

Historically, ITP has offered a wide assortment of reports intended to provide actionable information for different audiences at the student, classroom, building and district levels. Student scores are presented in terms of performance in relation to the Iowa Core and with respect to proficiency as defined by the state of Iowa. Starting in the middle school grades, predictors of college readiness and ACT scores are available. Reports are designed to meet parent communication needs (the Profile Narrative Report and the Reading and Mathematics Summary Reports); guide instructional improvement at the school level (Common Core Standards Domain Report, the Performance Profile Report, and the Class Item Response Record); and assist district record-keeping requirements (the Student Score Label and a CD-ROM of all student data). Other reports support the comparison of groups of students (in total, or disaggregated by various demographic characteristics) to other schools, and the nation as a whole (examples include the Group- and Subgroup Item Analysis Reports and the Group Performance Profile).

ITP plans to have the same wide assortment of reports available for the *NGIA*. Included in these plans are Board of Education and Building Summary Profile reports that capture the critical information of proficiency and growth relative to the Iowa Core, readiness and student achievement.

ITP will continue to assist Iowa educators in monitoring student progress, evaluating growth, and identifying trends in academic achievement using eITP, a tool for graphically displaying and analyzing student or group results. With appropriate user access rights (granted by a district administrator), educators are able to search for and display assessment results for individual students. They are also able to download this information for analysis and disaggregation at the local level. This service will continue for *NGIA.*

Enter any links to documents and page references here

Current *Iowa Assessment* reports that provide depth of knowledge information, proficiency information and domain information can be found at the following location on pages 4 to 6.
https://itp.education.uiowa.edu/ia/documents/IA_Interpreting_Reports.pdf

The current eITP site can be accessed at:
https://itp.education.uiowa.edu/ia/IndividualGrowthProfileTutorial.aspx
https://itp.education.uiowa.edu/ia/GroupGrowthProfileTutorial.aspx

7. Accurately describes growth

Enter summary here:

The Iowa Growth Model uses a calibrated vertical score scale, the Standard Score (SS), that permits several approaches to describing growth. It is a metric that ranges numerically from 80 to 400 and spans the achievement continuum from Kindergarten to grade 12 in major content domains such as Reading, Language, Mathematics, Science, and Social Studies. The scaling of the test across grade levels allows flexible testing on lower or higher content for students at every grade level. All forms of the *NGIA* and the current *Iowa Assessments* will be equated across forms both vertically and horizontally.

Research studies validate the reference points on the SS scale representing the medians for each grade level and the model-based inferences about the amount of growth typical of students at different achievement levels. The primary interpretations supported by the SS scale have to do with (1) how much a student grows from one assessment occasion to the next compared to his or her assessment peers (a relative growth interpretation), and (2) how much growth would be expected for this student's assessment peers (a normative growth interpretation). This basic information about growth can be used for a variety of purposes in student and program evaluation such as individual and group decisions about instructional interventions,

and responses to interventions that can be gauged by the amount of growth achieved.

Another key feature of the Iowa Growth Model and its vertical scale is the ability to track student growth over time to determine levels of proficiency or to provide comparisons with research-based performance benchmarks that indicate college and career readiness. The model defines a longitudinal trajectory that, at any given point in a student's educational development, can be used to determine whether a student is "on track" in comparison to such benchmarks. The performance benchmark for the college and career interpretation of growth is the probability of student success in credit-bearing coursework in postsecondary education. In each content area, this benchmark is a point on the Iowa vertical scale, and each benchmark can be used as a reference point as early as grade 6 to determine whether or not a student is "on track" toward college readiness. Reports to communicate this information will be included in the *NGIA* report suite.

Enter any links to documents and page references here

For research studies on the Iowa Growth Model, please see the following studies:

https://itp.education.uiowa.edu/ia/documents/Measuring-Growth-with-the-Iowa-Assessments.pdf

https://itp.education.uiowa.edu/ia/documents/Iowa_Growth_Model.pdf

https://itp.education.uiowa.edu/ia/documents/Establishing%20Validity%20Evidence%20to%20Assess%20College%20Readiness%20through%20a%20Vertical%20Scale.pdf

4. Validity

Please provide summary and reference to any supporting documents to demonstrate how you have determined your assessment is valid

There are numerous types of validity evidence that will be gathered for the NGIA. The NGIA will be supported by a continuous program of research and evaluation. ITP proposes to collaborate actively with Iowa schools and the Iowa DE to ensure that appropriate evidence for validity is obtained for every purported use of these results.

Given that the proposed assessment is not operational and the information requested on validity is not available, evidence of the type of validity evidence to be collected is provided. In addition, relevant information from the current Iowa Assessments developed and delivered in the state of Iowa is shared.

8. Criterion validity coefficients (correlational evidence)

Enter summary here:

Historically, tests such as the *Iowa Assessments* have been used in many ways to support judgments about how well students are prepared for future instruction—that is, as general measures of readiness. Over the years, ITP has conducted numerous studies to establish the predictive "power" of the *Iowa Assessments* with respect to a variety of criterion measures, including high school GPA, college GPA, and scores on college entrance exams such as the ACT® and SAT® (for example, Scannell, 1958; Rosemeier, 1962; Loyd, Forsyth, and Hoover, 1980, Ansley & Forsyth, 1983; Iowa Testing Programs, 1999). The *Guide for Research and Development, Forms A and B* includes the details of these studies.

More recently, Welch and Dunbar (2011) and Furgol, Fina, and Welch (2011) investigated the relationship between performance on the *Iowa Assessments* and college admissions test scores in a matched longitudinal cohort of more than 25,000 students in grades 7 through 11 who tested annually over a five-year period. Evidence of a strong relationship (.87) between *Iowa Assessments* scores in grade 11 and the ACT composite score suggests that the *Iowa Assessments* and college readiness measures assess the same achievement domains. This same research was replicated using in 2014 using the class of 2013 data.

Grade	Correlation between *Iowa Assessment* and ACT Composite for state of Iowa students
7th	.83
8th	.83
9th	.85
10th	.86
11th	.87

As a second source of criterion validity, the relationship between the *Iowa Assessments* and an ability test (CogAT) has been extensively studied. Unlike the scoring rubric for this section might suggest, a more moderate correlation between an achievement test and a test of general abilities would be desirable. Too high of a correlation (greater than .90) would suggest that the achievement and ability measure lack discriminant validity and are measuring the same construct. Average correlations with the *Iowa Assessments*

Levels 5/6–17 Complete Composite and *CogAT* Form 7 are .77 for the Verbal Battery, .71 for the Quantitative Battery, .64 for the Nonverbal Battery, and .80 for the *CogAT* Form 7 Composite. Clearly, the relationship is substantial in all cases; however, the correlations are not so high as to suggest that the achievement and ability measures lack discriminant validity. The combined achievement/ability reporting structures for the *Iowa Assessment* emphasizes differences that suggest under- or over-achievement of individuals and groups.

As a third source of criterion validity, the relationship between the Iowa Assessments and placement examinations such as Northwest Evaluation Association's MAP has been documented. Correlation coefficients between MAP and Iowa Assessment show the degree to which MAP and the state test related. Based on a study conducted in 2010, these correlations range from .76 to .84 in mathematics for students from grade 3 to grade 8. In reading they range from .68 to .76 for these same grade levels.

Enter any links to documents and page references here

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

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

For relationship with CogAT, see pages 127-144:
https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf

For relationship with MAP, see page 10
http://www.nwea.org/sites/www.nwea.org/files/resources/Iowa%20Linking%20Study%20August%202010.pdf

Additional information concerning this topic was shared on pages 13 to 17 (content validity) and pages 17 to 19 (predictive validity) of ITP's initial RFI submission (Response to Request for Information, ASTF0001, submitted on November 20, 2013). An electronic copy of this document has been forwarded with this response.

9.   Description of methodology indicating the quality of validity evidence

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Enter summary here:

The *NGIA* will be supported by a continuous program of research and evaluation. Rational judgment also plays a key part in evaluating the validity of these achievement tests against content and process standards and in interpreting statistical evidence from validity studies. ITP proposes to collaborate actively with Iowa schools and the Iowa DE to ensure that appropriate evidence for validity is obtained from the *NGIA*.

Validity is an attribute of information from tests that, according to the *Standards for Educational and Psychological Testing*, "refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests" (1999, p. 9).

Assessment information is not considered valid or invalid in any absolute sense. Rather, the information is considered valid for a particular use or interpretation and invalid for another. The *Standards* further state that validation involves the accumulation of evidence to support the proposed score interpretations.

Data and research pertaining to the *Iowa Assessments* consider the five major sources of validity evidence that are outlined in the *Standards:*

- test content
- response processes
- internal structure
- relations to other variables
- consequences of testing

Validity must be judged in relation to purpose. Different purposes may call for tests built to different specifications. For example, a test intended to determine whether students have reached a performance standard in a local district is unlikely to have much validity for measuring differences in progress toward individually determined goals. Similarly, a testing program designed primarily to answer "accountability" questions may not be the best program to stimulate differential instruction and creative teaching.

Cronbach made the point that validation is the task of the interpreter: "In the end, the responsibility for valid use of a test rests on the person who interprets it. The published research merely provides the interpreter with some facts and concepts. He has to combine these with his other knowledge about the person he tests...." (1971, p. 445). Messick contended that published research should bolster facts and concepts with "some exposition of the critical value contents in which the facts are embedded and with provisional accounting of the potential social consequences of alternative test uses" (1989, p. 88). More recently, Kane proposed that validation is a way of thinking about the use of test results that (1) establishes a framework for test development based in the interpretations to be made of test results, (2) structures the evidence that should be gathered to support an argument for validity of the intended interpretations, and (3) clarifies the extent to which the argument for validity is adequate for the purpose the test is intended to serve (2006, p. 60). All of these perspectives reflect important aspects of validity in large-scale assessment.

Instructional decisions involve the combination of test validity evidence and prior information about the person or group tested. Nevertheless, one should explain how tests are developed and provide recommendations for appropriate uses. In addition, guidelines should be established for reporting test results that lead to valid score interpretations so that the consequences of test use at the local level are clear.

The procedures used to develop and revise test materials and interpretive information lay the foundation for test validity. Meaningful evidence related to inferences based on test scores, not to mention desirable consequences from those inferences, can provide test scores with social utility only if test development produces meaningful test materials. Content quality is thus the essence of arguments for test validity (Linn, Baker & Dunbar, 1991).

The types of statistical data that might be considered as evidence of test validity include reliability coefficients, difficulty indices of individual test items, indices of the discriminating power of the items, indices of differential functioning of the items, and correlations with other measures such as course grades, scores on other tests of the same type, or experimental measures of the same content or skills.

All of these types of evidence reflect on the validity of the test, but they do not guarantee its validity. They do not prove that the test measures what it purports to measure. They certainly cannot reveal whether the things being measured are those that ought to be measured. A high reliability coefficient, for example, shows that the test is measuring something consistently but does not indicate what that "something" is. Given two tests with the same title, the one with the higher reliability may actually be the less valid for a particular purpose (Feldt, 1997). For example, one can build a highly reliable mathematics test by including only simple computation

items, but this would not be a valid test of problem-solving skills. Similarly, a poor test may show the same distribution of item difficulties as a good test, or it may show a higher average index of discrimination than a more valid test.

Correlations of test scores with other measures are evidence of the validity of a test only if the other measures are as good as or better than the test that is being evaluated.

Enter any links to documents and page references here

For validity evidence on the current assessmentsd, see pages 25-26 and 44-45:
https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf

5. Reliability

Please provide summary and reference to any supporting documents to demonstrate how you have determined that your assessment is reliable

There are numerous types of reliability indices that will be computed for the NGIA on the raw score scale, the reported score scales and all subscales. Generalizability analysis will be used to estimate reliabilities for all constructed-response items and well as all scoring components. Classical and IRT methods will be used to calculate test reliabilities of all scale scores.

However, given that the proposed assessment is not operational and the information requested on reliability is not available, evidence of ITP's plans to collect the information or complete the requested tasks is provided. In addition, relevant information from the current Iowa Assessments developed and delivered in the state of Iowa is shared.

10. Internal consistency (alpha, split half, marginal)

Enter summary here:

Internal consistency estimates for all scores reported on the *NGIA* will be provided.

Internal consistency reliability coefficients for the current *Iowa Assessments* for spring examinees are provided in the table below for grades 3 to 11 in reading and mathematics.

	Coefficient Alpha		Split Half	
Grade	**Mathematics**	**Reading**	**Mathematics**	**Reading**
3	.88	.91	.88	.90
4	.89	.91	.89	.91
5	.90	.92	.90	.91
6	.91	.92	.91	.92
7	.94	.92	.93	.91
8	.94	.92	.94	.92
9	.90	.92	.89	.92
10	.89	.93	.89	.93
11	.91	.93	.89	.94

Enter any links to documents and page references here

For reliability information, see pages 20-29:
https://itp.education.uiowa.edu/ia/TechnicalManualFormE.aspx

11. Stability over time (test retest, alternate form)

Enter summary here:

Test-retest reliability estimates for the total tests found in the *NGIA* will be provided when the appropriate data are available.

Test-retest reliability estimates for current and previous *Iowa Assessments* for grades 3 to 11 in mathematics and reading are provided below.

	Test Retest	
Grade	Mathematics	Reading
3	.86	.88
4	.85	.87
5	.89	.88
6	.86	.88
7	.87	.88
8	.87	.87
9	.77	.85
10	.74	.79
11	.78	.84

Enter any links to documents and page references here

For test-retest reliability estimates on the current assessment, see page 75:
https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf

12. Scorer consistency (inter-rater agreement in some form) (if applicable)

Enter summary here:

A series of generalizability analyses will be conducted to study the rater effects for the constructed-response items. Inter-rater agreement rates as well as other indices of rater precision will be computed.

The tryout and field testing of constructed-response items for the *NGIA* were completed in the fall of 2013 and the spring of 2014. Scoring of the reading and mathematics constructed-response items will be completed in the summer of 2014.

The writing component of the NGIA has been under development for the past several years.   Scoring of the extended writing responses, completed by state of Iowa teachers during the summers of 2010, 2011 and 2012 resulted in the following accuracy scoring consistency indices.

	Types of Writing	Common Core Writing Standards	Inter-rater Reliability Ranges	Scoring Consistency Percents
Grades 3-5	Opinion pieces on topics, supporting a point of view Informative/explanatory Narrative	1 2 3	.74-.79	97-98%
Grades 6-8	Arguments informative/explanatory Narrative	1 2 3	.73-.78	92-95%
Grades 9-11	Arguments informative/explanatory Narrative	1 2 3	.76-.80	93-96%

Enter any links to documents and page references here

13. Description of methodology indicating the quality of reliability evidence

Enter summary here:

The reliability evidence used to establish the dependability of scores on the *Iowa Assessments* is drawn from studies with operational forms and with multiple-form administrations. Internal-consistency reliability coefficients are based on large, representative samples. Test-retest or alternate forms coefficients are based on single-group design linking studies in which order of forms is counterbalanced and variability of samples ensures no spurious effects introduced by range restriction. Scoring studies to assess the quality of training materials for constructed-response scoring include double-reads of open-ended items and quality assurance checks on rater agreement, rater drift and inter-rater reliability in generalizability homework.

The principal reliability information provided with the *Iowa Assessments* comes from nationally representative samples at each grade level (K-12) that take the assessment under standard conditions of administration (including accommodations). From these administrations, reliability coefficients, standard errors of measurement and conditional standard errors of measurement are determined. Results of these studies are validated and augmented with data from large-scale administrations of the assessments.

Additionally, reliability and standard errors of measurement are computed for subgroups based on race and ethnicity. Thus, multiple reliability studies, conducted on an ongoing basis, support the dependability of assessment results.

Enter any links to documents and page references here

For information on reliability, see pages 63-64, 83-84 and 152:
https://itp.education.uiowa.edu/ia/documents/ITBS-Research-Guide.pdf

6. Piloted/Tested in Iowa

Please provide summary and reference to any supporting documents to demonstrate that your assessment has been piloted in Iowa

14. Piloted in Iowa (item tryout)

Enter summary here:

ITP continuously collects data on the performance of the items that have successfully passed the review process by conducting item tryouts in most Iowa districts to determine how well new innovative items are performing. ITP has tried out technology enhanced items, constructed response items in language, reading and mathematics and extended constructed-response items in writing during the 2012-2013 and 2013-2014 academic years.

Enter any links to documents and page references here

15. Tested in Iowa (field tested)

Enter summary here:

ITP collects data on the performance of the items that have successfully passed the review processes and the item tryout by conducting an extensive field test to determine how well the items are likely to perform operationally. Iowa students complete the field tests when they take the operational tests in numbers sufficient to ensure the associated statistical results are sound. Field testing of test materials and alignment to the Iowa Core standards provide data necessary to ensure optimal placement of items for the measurement of growth. Since the adoption of the Common Core in 2010, approximately 432,000 Iowa students have responded to tryout items.

Enter any links to documents and page references here

7. Alignment

Please provide summary and reference to any supporting documents to demonstrate that your assessment is aligned in the following ways:

There are several well-documented methodologies in support of alignment, including the one developed by Norman Webb. Each alignment methodology examines a match, whether it be between the curriculum and the standards, the standards and the items, or the standards and the complete test.

However, given that the proposed assessment is not operational and the information requested on alignment is not available, evidence of ITP's plans to collect the information or complete the requested tasks is provided.

16. Methodology of content alignment to domains, standards and clusters

Enter summary here:

Alignment to the Iowa Core has been a guiding principle of the development of the *NGIA*. Since the Iowa Core Standards were adopted by the state in July 2010, Iowa Testing Programs has depended upon these standards to define and shape the development and research necessary to build an assessment aligned to the Iowa Core in English Language Arts, Mathematics, Science and Social Studies.

To produce items that are aligned, ITP follows a well-defined development process that helps to ensure the appropriate balance and representation of content. This process includes the following steps:

•   Creation of test specifications that define the content areas and cognitive processes to be measured by the NGIA
•   Development of test materials (items and scoring rubrics) by Iowa educators that measure critical aspects of the Iowa Core
•   Alignment of individual items to the Iowa Core by Iowa educators during the item development process at the standards, clusters and domain levels
•   Post hoc verification of these alignments by focus groups of Iowa educators who are actively teaching English Language Arts, Mathematics, Science, and Social Studies at the appropriate grade levels

ITP believes that calling on the expertise of Iowa educators from the very beginning of our development process is a defining feature of our ability to demonstrate alignment to the Iowa Core Standards.

Enter any links to documents and page references here

https://itp.education.uiowa.edu/ia/documents/Assessment-Brief-Alignment-Final.pdf

17. Tables of specifications

Enter summary here:

The *Next Generation Iowa Assessment* is being designed to mirror the rigor of the Iowa Core and will, therefore, include a variety of item types (definitions are provided below). Draft tables of specifications that are being used to guide the development are provided after the item type definitions.

Technology-enhanced items (TE): Typically administered on a computer, these items require students to move beyond recall and recognition to complex thought processes and responses. By taking advantage of the many features in today's computer-based technologies, these items can be interactive; include unique response interfaces such as hot spots, point-and-click, etc.; include various audio and visual media and other stimuli; and require students to provide or select multiple responses to a single question. All TE items will be machine scored.

Constructed- response items (CR): These items present greater challenges to students as they draw upon higher-order thinking and cognitive processes. They generally require numeric or text responses, which can be brief responses, such as single words or numbers. They can also require the student to solve multi-stage mathematics problems or craft a response to a reading analysis. Scoring of these items will involve a mix of technology-based scoring (automated computer scoring and/or artificial intelligence) and human scoring using scoring rubrics.

Extended-response items (ER): These items will require students to spend substantial time drafting an extended response to a writing prompt. Scoring of these items will involve a mix of technology-based scoring (automated computer scoring and/or artificial intelligence) and human scoring using scoring rubrics.

Multiple-choice (MC): These items will continue to measure aspects of the Iowa Core that are most appropriately and efficiently assessed through this item type.

NGIA – Draft ELA Test Specifications

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	MC CR TE	6-8 1-3 1-3	6-8 1-3 1-3	6-8 1-3 1-3	7-9 1-3 1-3	7-9 1-3 1-3	7-9 1-3 1-3	6-8 1-3 1-3
	Craft and Structure	MC CR TE	10-12 1-3 1-2	10-12 1-3 1-2	10-12 1-3 1-2	11-13 1-3 1-2	11-13 1-3 1-2	11-13 1-3 1-2	10-12 1-3 1-2
	Key Ideas and Details	MC CR TE	12-14 1-3 1-2	12-14 1-3 1-2	12-14 1-3 1-2	13-15 1-3 1-2	13-15 1-3 1-2	13-15 1-3 1-2	13-15 1-3 1-2
Language	Conventions of Standard English / Knowledge of Language	MC TE	20-24 3-5	20-24 3-5	22-26 5-7	22-26 5-7	24-28 6-8	24-28 6-8	28-32 6-8
	Vocabulary Acquisition and Usage	MC TE	10-12 2-3	10-12 2-3	10-12 2-3	11-13 2-3	11-13 2-3	12-14 3-4	14-16 3-4
Writing		ER	1	1	1	1	1	1	1

NGIA – Draft Mathematics Test Specifications

Math Domains	Item Type	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
Operations and Algebraic Thinking	MC CR TE	6-8 1-2 1-2	7-9 1-2 1-21-2	8-10 1-2 0-1				TBD
Number and Operations in Base Ten	MC CR TE	6-8 1-2 1-2	7-9 1-2 1-2	8-10 1-2 1-2				
Number and Operations – Fractions	MC CR TE	6-8 1-2 1-2	7-9 1-2 1-2	8-10 1-2 1-2				
Measurement and Data	MC CR TE	6-8 1-2 1-2	7-9 1-2 1-2	8-10 1-2 1-2				
Geometry	MC CR TE	6-8 1-2 1-2	7-9 1-2 1-2	8-10 1-2 1-2	9-11 1-2 1-2	10-12 1-2 1-2	11-13 1-2 1-2	TBD
Ratios and Proportional Relationships	MC CR TE				9-11 1-2 1-2	10-12 1-2 1-2		
The Number System (Number and Quantity)	MC CR TE				9-11 1-2 1-2	10-12 1-2 1-2	11-13 1-2 1-2	TBD
Expressions and Equations	MC CR TE				9-11 1-2 1-2	10-12 1-2 1-2	11-13 1-2 1-2	TBD
Statistics and Probability	MC CR TE				9-11 1-2 1-2	10-12 1-2 1-2	11-13 1-2 1-2	TBD
Functions	MC CR TE						11-13 1-2 1-2	TBD

Enter any links to documents and page references here

18. Amount of content coverage

Enter summary here:

All domains and clusters of the Iowa Core will be covered in the *NGIA*. The following two tables illustrate the level of reporting that will be supported by this assessment.

NGIA ELA Reporting Domain Categories, Grades 3 – 8 and High School

Test	Reporting Categories	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
ELA – Part 1, Reading	Total Reading Score	✓	✓	✓	✓	✓	✓	✓
	Key ideas	✓	✓	✓	✓	✓	✓	✓
	Craft and Structure	✓	✓	✓	✓	✓	✓	✓
	Integration of Knowledge and Language	✓	✓	✓	✓	✓	✓	✓
ELA – Part 2, Language	Total Language Score	✓	✓	✓	✓	✓	✓	✓
	Conventions of Standard English	✓	✓	✓	✓	✓	✓	✓
	Knowledge of Language	✓	✓	✓	✓	✓	✓	✓
	Vocabulary Acquisition and Use	✓	✓	✓	✓	✓	✓	✓
ELA – Part 3, Writing	Total Writing Score	✓	✓	✓	✓	✓	✓	✓
ELA Composite	Total Score	✓	✓	✓	✓	✓	✓	✓

NGIA Math Reporting Domain Categories, Grades 3 – 8 and High School

Reporting Categories	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
Operations and Algebraic Thinking	✓	✓	✓				✓
Number and Operations in Base Ten	✓	✓	✓				
Number and Operations -- Fractions	✓	✓	✓				
Measurement and Data	✓	✓	✓				
Geometry	✓	✓	✓	✓	✓	✓	✓
Ratios and Proportional Relationships				✓	✓		
The Number System (Number and Quantity)				✓	✓	✓	✓
Expressions and Equations				✓	✓	✓	✓
Statistics and Probability				✓	✓	✓	✓
Functions						✓	✓
Mathematics Problem Solving and Data Interpretation	✓	✓	✓	✓	✓	✓	✓

Mathematics Concepts	✓	✓	✓	✓	✓	✓	✓
Enter any links to documents and page references here							

19. Evidence of alignment in Depth of Knowledge (DOK) (AKA rigor or cognitive level)

Enter summary here:
All items being prepared for the *NGIA* will be rated according to Webb's Depth of Knowledge levels. Items are initially aligned by the item writer, usually a teacher practicing in the state of Iowa. Item alignments are then discussed by a panel of Iowa teachers and the alignment is finalized. An external consultant reviews the alignment again prior to the selection of an item for inclusion on a test form.

The final distribution of the DOK levels crossed by the content domains and clusters will be made available to all Iowa educators to aid in their understanding of how the DOK level interacts with the domains and clusters and the various item formats.

Enter any links to documents and page references here

Definitions of the current cognitive levels (DOK 1, 2 and 3) can be found on page 2 at:
https://itp.education.uiowa.edu/ia/documents/IA_Interpreting_Results.pdf

20. Language is consistent with the Iowa Core

Enter summary here:

All reporting categories for the *NGIA* will be consistent with the language of the Iowa Core.

A series of Common Core Reports (both group and individual) is currently provided for the *Iowa Assessments* which provides domain-specific information for both levels of reporting.

Enter any links to documents and page references here

Examples of the types of reports currently supported on the Iowa Assessment can be found at:
https://itp.education.uiowa.edu/ia/documents/IA_Interpreting_Reports.pdf

8. College/Career

21. Please provide summary and reference to any supporting documents to demonstrate that your assessment measures progress toward college or career (content) readiness

Enter summary here:

Welch and Dunbar (2011) investigated the importance of providing readiness information to families and educators to determine whether students are on track and where additional coursework and preparation should be considered. Using a target of a college readiness benchmark expressed in terms of the vertical scale of the Iowa Assessments, a goal defined by expected growth, helps families and educators to plan. Furgol, Fina, and Welch (2011) investigated the relationship between *Iowa Assessments* scores and the ACT composite score. A study by Wang, Chen, and Welch (2011) examined group differences in the empirical trajectories of performance and established that growth trends for culturally (e.g. Asian and Hispanic) and linguistically diverse (i.e. English Language Learners) test takers run parallel to the college readiness trajectories identified by Furgol, et al. (2011).

Similar research will continue when the *NGIA* is introduced, and the college readiness standards will be statistically linked to the *NGIA*. In addition, as Iowa students complete their high school education and enroll in public (two-year and four-year) and private institutions in the state, ITP will validate the predictive validity of the *Next Generation Iowa Assessments* by tracking student performance throughout their postsecondary experiences.

By providing evidence of content readiness or preparedness, this line of research is intended to provide additional validation evidence.

Enter any links to documents and page references here

Research documents validating the college and career readiness indicators can be found at:
https://itp.education.uiowa.edu/ia/documents/Assessment-Brief-Readiness-Final.pdf

https://itp.education.uiowa.edu/ia/documents/Establishing%20Validity%20Evidence%20to%20Assess%20College%20Readiness%20through%20a%20Vertical%20Scale.pdf

https://itp.education.uiowa.edu/ia/documents/Evaluating-College-Readiness-for-English-Language-Learners-and-Hispanic-and-Asian-Students.pdf

Additional information concerning this topic was shared on pages 17 to 19 (college readiness) of ITP's initial RFI submission (Response to Request for Information, ASTF0001, submitted on November 20, 2013). An electronic copy of this document has been forwarded with this response.

9. Technical Supports

Please provide summary and reference to any supporting documents to demonstrate the technical supports that are available

22. Training on assessments and interpretation of reports

Enter summary here:

ITP will continue to offer training on the use and interpretation of results to Iowa educators. The introduction of the *NGIA* will require a combination of information delivered through in-person workshops, webinars, the ITP website and ITP technical support.

When the current *Iowa Assessments* were introduced within the state of Iowa, 45 workshops were offered on the introduction and changes in the assessment at no cost to the state. An additional 30 workshops were offered on the interpretation and use of the results.

In addition, webinars have been offered on score interpretation, interpreting reports, interpreting growth, downloading data and trend analysis.

Enter any links to documents and page references here

A number of links on the ITP website illustrate the type of support that is available to Iowa educators.

1. [Help with importing the student data CD into Excel (video)](#)
2. [Help with calculating proficiency totals using the Iowa Assessments data CD (video)](#)
3. [Measure of Student Growth: The Iowa Assessments (Webinar)](#)
4. http://link.brightcove.com/services/player/bcpid2147475848001?bckey=AQ~~,AAAAD-nmr5k~,ts6FDV2LlY6mrV9PO2ct6atvRvblZF2A&bctid=3145205546001

23. Availability of results - machine scored (including AI scored constructed response items)

Enter summary here:

When possible, constructed-response items in mathematics, reading and writing that can be scored via an automated scoring engine will be scored and reported immediately. Although the current research on automated scoring engines suggests that they are best applied to extended constructed response items (such as the proposed writing assessment), ITP will continue to research options in this area.

Immediate scoring and reporting will also be available for all technology-enhanced and multiple-choice items.

Enter any links to documents and page references here

24. Availability of results - human scored (student constructed responses)

Enter summary here:

Constructed-response items in mathematics and reading that cannot be scored via an automated scoring engine will be scored by human readers.

ITP will work with the state of Iowa to determine the best approach to scoring and reporting these results.

Enter any links to documents and page references here

Assessment Survey Part Two

The Assessment Task Force is interested in additional features of the proposed assessments, as listed below. However, responses to the questions below will not be scored in round one of the review. The Assessment Task Force will review and score responses to Part One of this survey, which will determine which vendors move into a second round of review.

The second round of review will focus on quality and accessibility of assessments and other issues related to implementation. The information below will be used during this second review. Additional information may be requested of assessment providers for the second round of assessment reviews.

1. What test format or delivery system is proposed? Check all that apply and/or list planned implementation dates if some proposed forms are still in development.

	Content Area		Paper Pencil	Computer-based		
Grade	ELA	Math	Fixed Form	Fixed Form	Adaptive	Comments
Kindergarten	X	X	X	X		
Grade 1	X	X	X	X		
Grade 2	X	X	X	X		
Grade 3	X	X	X	X		
Grade 4	X	X	X	X		
Grade 5	X	X	X	X		
Grade 6	X	X	X	X		
Grade 7	X	X	X	X		
Grade 8	X	X	X	X		
Grade 9	X	X	X	X		
Grade 10	X	X	X	X		
Grade 11	X	X	X	X		
Grade 12	X	X	X	X		

2. If computer-based and/or computer adaptive tests are proposed, what is the bridge plan for schools that currently do not have the technical capacity to administer them?

The *Next Generation Iowa Assessment*s can be administered in either a paper-based or online mode, with the decision residing at the district level or as determined by the Department of Education. This approach gives schools flexibility in their use of technology resources and scheduling so that they can administer tests in ways that meet their needs.

Additional information concerning this topic was shared on page 25 (Comparability of Paper-Based and Online Modes of Administration) of ITP's initial RFI submission (Response to Request for Information, ASTF0001, submitted on November 20, 2013). An electronic copy of this document has been forwarded with this response.

3.   Describe the item types developed for each assessment form, including innovative item types.

    Please see information shared in Section 7, Alignment, question 17.   Four different item types are being developed, piloted and field tested in preparation for the *NGIA*.

4.   How are paper/pencil test results equated with computer-based test results?

    All paper and pencil and computer-based tests will undergo an extensive comparability study to allow the reporting metric to be the same for both modes. Similar studies have been conducted with the online and paper and pencil versions of the current *Iowa Assessments*.

5.   Which statistical framework(s) were used in test development?
        _X__ Classical test theory
        _X__ Item response theory
        _X__ Generalizability theory
        ___ Other (please identify)

6.   On which of the following devices and operating systems is the proposed assessment currently operating?
        _X__Windows 8 desktops/laptops
        _X__Windows 7 desktops/laptops
        _X__Mac OSX desktops/laptops
        ___Chrome OS laptops
        _X__iOS tablets (iPads)
        ___Android tablets
        ___Windows 8 tablets
        ___Other devices/operating systems: _____

The online system is web-based and will provide all needed security features as well as full support for the test-taking experience. Each student will have a logon and password to the tests within the online testing system. Teachers will facilitate the administration just as they do with a paper-based administration. Once the student completes the test, the responses are submitted via the online system for scoring.

One key advantage of a web-based system is that it does not require the installation of extensive software locally. It supports current releases of most major operation systems and browsers. The list of supported versions will continue to evolve between now and the introduction of this assessment. The table below identifies the system requirements as currently configured.

	Typical System Requirements
Processor	2 GHz or faster
RAM	2 GB RAM

Operating System	• Windows XP (SP3), Vista, Windows 7 and 8
	• Mac OS 10.5 or higher
Web Browser	• IE 8 and higher
	• Firefox 17 and higher
	• Chrome (ESR 17 and later)
	• Safari 5.0 or higher
Tablets	• iPad with iOS5 or higher
	• Android 4.2 or higher
Minimum Screen Resolution	1024 × 768 (computer), scaling to a minimum of 10-inch (tablet)

7.   What is the <u>minimum</u> bandwidth per student required for the proposed assessments?

What is the <u>recommended</u> bandwidth per student?

Each student should be using a high-speed connection to the Internet. ITP acknowledges that students' access to the Internet is constrained by a number of factors, both static (e.g. the number, capacity, placement of routers, the capacity of the T-1, cable, or fiber-optic connection to the Internet) as well as dynamic (e.g. the number of students testing simultaneously and the numbers of non-testing students accessing the Internet). ITP's approach is to provide a tool for testing districts and schools to use to pre-qualify their local access to the Internet. The tool simulates a typical capacity demand load for a number of testing students. Schools are encouraged to run the tool during those windows (days and times) when testing is scheduled to occur to assure themselves that they have sufficient capacity to offer their students a satisfactory online test experience.

8.   What resources do you have to help schools plan for technology readiness? (e.g., help figuring out what is needed to buy or put in place)

ITP is committed to providing an online testing solution which is as accommodating as possible to the widest variety of schools and districts. Our online testing system is, and will continue to be, designed to remain functional on a variety of "platforms" new and old, thereby allowing districts and schools to test with older technology.

ITP will publish and update recommended hardware/ software/ connectivity specifications, and will make available technologists who can advise district and school IT departments with the acquisition and deployment of new solutions.

9.   What technical support do you offer to help schools as they schedule the administration of the assessments?

ITP has several current full-time employees who work directly with participating school districts on technology- readiness aspects of its assessment programs. When ITP introduced an online administration of Form E of the *Iowa Assessments* in Fall 2013, we employed a multi-prong approach to maximize schools' readiness:

a) ITP hosted an on-site kick-off meeting for interested schools, during which educators were provided instruction on how to initiate the online test.

b) ITP offered periodic conference calls/ webinars to check on schools' progress, to answer any questions, and to provide assistance as needed.

These resources will continue to support the *NGIA* program and will provide the basis for a train-the-trainer model of technology support for the program.

10. What technical support do you offer to help schools troubleshooting technical issues during the administration of the assessments (e.g., help desk)?

ITP has several current full-time employees who take phone calls and respond to emails from Iowa districts in real time from the hours of 8am to 5pm, Monday through Friday. In the past,

a) ITP provided phone and e-mail support during and after the test administration period to assist educators in the scoring and reporting of results.

b) ITP sent individuals to schools in advance of (and during) the test event, to provide real-time assistance to teachers and test proctors.

c) ITP maintained an e-mail list of testing schools, and sent periodic status updates to all users.

11. Please list all accommodations provided for the proposed assessments. Please note if accommodations are only available at certain grades, content areas, or administration formats.

1. General accommodations

2. Accommodations for English Language Learners

3. Accommodations for students with vision disabilities

4. Accommodations for students with hearing impairments

5. Accommodations for students with physical impairments

6. Other specific accommodations

Accommodations provided for the *NGIA* were listed in Section 1, Fairness, subpart 3a. That section is repeated here for convenience. Accommodations are available as specified by each student's IEP, so for any given student a combination of the accommodation categories listed above may be needed.

There is no finite list of accommodations that are permitted when using the *Iowa Assessments* or the *NGIA*. Rather, all administration guidelines instruct each school district to apply the state of Iowa policies on IEP or 504 Plans as they related to test administration. The results include students who were administered the assessments using a variety of accommodations and modifications.

For use in the state of Iowa, students' IEP or 504 Plans take precedence and should dictate the conditions under which the current *Iowa Assessments* are given. The following table identifies typical accommodations used within the state of Iowa via IEPs or 504 Plans.

Accommodation	Allowable if specified in students' IEP or 504 Plans
Braille	✓
Large Print	✓
Scribes	✓
Read-aloud (which would include text-to-speech assistive technology, in either hardware or software form)	✓
Extended time	✓
Assistive Technology – Includes: • Amplification equipment • Noise buffers; • Magnifying devices; • Non-calibrated rule or template; • Communication boards or devices; • Talking calculators; • Speech-to-text software or devices; • Close-captioned or video materials; • Audio file of state-required assessment; • Cranmer Abacus; • Auditory trainer; • Electronic dictionaries; and • Refresher Braille; • Signing avatar; • Word prediction; and • Screen readers.	✓
Calculators: subjects other than Math Computation	Allowed for all students.
Calculators: Math Computation Test	✓
Manipulatives	✓
Reinforcement and behavioral modification strategy	✓
Interpreters for students with deafness or hearing impairment	✓
Simplified language and oral native language support for LEP students	✓

A national study in the 2010 validated the use of accommodations for students with who were English language learners and students with special needs. Schools participating in the study were asked to

identify all students with those classifications, decide whether they should participate in the assessment, and, if so, determine whether accommodations in testing procedures were needed.

Among students with special needs, nearly all were identified as eligible for special education services and had an Individual Education Program (IEP), an Individual Accommodation Plan (IAP), or a Section 504 Plan. Schools were asked to examine the IEP or other plan for these students, decide whether the students should receive accommodations, and determine the nature of those accommodations.

Schools were told that an accommodation refers to a change in the procedures for administering the assessment and that an accommodation is intended to neutralize, as much as possible, the effect of the student's special needs on the assessment process. Accommodations should not change the *kind* of achievement being measured, but change *how* achievement is measured. If chosen appropriately, an accommodation should provide neither too much nor too little help to the student who receives it.

When accommodations were provided, their use was recorded on each student's answer document by the test administrator. For students whose native language was not English and who had been in an English-only classroom for a limited time, two decisions had to be made prior to administering the assessment. First, was English-language acquisition developed sufficiently to warrant participation, and second, should the assessment involve the use of any particular accommodations? In all instances, the guidelines in place in the school district were to be implemented in making decisions about each student.

The test administrators were told that the use of accommodations with English language learners is intended to allow the measurement of skills and knowledge in the curriculum without significant interference from a limited opportunity to learn English. Those just beginning instruction in English were not likely to be able to answer many questions no matter what types of accommodations were used. For those in the second or third year of instruction in an English as a Second Language (ESL) program, accommodations might be warranted to reduce the effect of limited English proficiency on test performance. Results of this study can be found in the Technical Manual for Form E of the *Iowa Assessments*.

Similar studies will be conducted on the *NGIA*.

12. Do you offer a suite of aligned assessments related to the proposed summative assessment? If so, please list the other assessments in the suite and indicate their purpose. (i.e., formative, interim/benchmark, etc.)

    NGIA offers a summative assessment solution to the state of Iowa that addresses the Iowa Core and the demands of the federal accountability mandates. The *NGIA* can appropriately be used as the summative piece to any formative/classroom model, interim program or district-mandated approach. It is not associated with or "sold" with a publisher's suite of assessment products.

13. List any other supporting resources for schools and teachers. (These could include practice tests, sample assessments, professional learning, etc.)

    ITP will provide all of these supporting resources including practice tests, sample assessments, and professional development workshops on administrations, scoring and reporting.

14. What is the estimated time to administer the proposed assessments? Indicate times or estimated times for each content area, grade level and format if applicable.

	Content Area		
Grade	**ELA****	**Math**	**Comments**
Kindergarten	TBD	TBD	
Grade 1	TBD	TBD	
Grade 2	TBD	TBD	
Grade 3	90	60	+30 minutes writing assessment
Grade 4	90	60	+30 minutes writing assessment
Grade 5	90	60	+30 minutes writing assessment
Grade 6	90	60	+30 minutes writing assessment
Grade 7	90	60	+30 minutes writing assessment
Grade 8	90	60	+30 minutes writing assessment
Grade 9	90	60	+30 minutes writing assessment
Grade 10	90	60	+30 minutes writing assessment
Grade 11	90	60	+30 minutes writing assessment
Grade 12	90	60	+30 minutes writing assessment

**The ELA component includes coverage of the Iowa Core in Reading, Language and Writing.

15. Please provide evidence of typical costs for the proposed assessment package. It is expected that this cost includes the following:

    o A standard package of materials, supports, reports, and data files to deploy a summative assessment for English language arts and mathematics for state accountability.

- Data file with individual student data, including raw data, percentile rank, and scaled/standard scores per test (subtests, benchmarks, etc.) for transfer into data systems.

- Printed and electronic reports by different groupings (i.e., disaggregation, but also by content divisions (domain, standard, etc.)

- Materials and supports necessary for all of administration, scoring, and reporting, including recommended accommodations (i.e., braille, audio).

ITP's approach to costing for the *NGIA* and the parameters of test design that affect costs are described in its Response to RFI ASTF001 on pages 3-4 and 20-23. The structure of the reporting system for the *Iowa Assessments*, which includes CDROM or downloadable individual student data with all necessary EdInsight supports, will be continued for the *NGIA* assessment program. Printed and electronic reports for disaggregation and transfer to district student information systems at designated reporting levels will be provided. In addition, the standard package will include all necessary supports for administration (e.g. audio, refreshable Braille, large-print) and both electronic and hand-scoring.

ITP will work with the Iowa Department of Education to determine the appropriate design configuration to meet the state's needs for assessment information and to leverage its inter-agency role as a state government partner to maximize cost savings and efficiencies for the new program. The current program with the *Iowa Assessments* provides materials, services, professional development and technical support to Iowa schools and the Iowa DE that amount to an approximately 60-80 percent reduction from the costs of similar services delivered outside the state of Iowa.

Additional information concerning this topic was shared on pages 20-21 (Cost to School Districts) of ITP's initial RFI submission (Response to Request for Information, ASTF0001, submitted on November 20, 2013). An electronic copy of this document has been forwarded with this response.

16. Please describe plans for revision or replacement of items or tests (longevity of assessment system).

    The *NGIA* is being designed as a dynamic assessment program with new test materials being under constant development, revision and field testing to support the item pool from which active forms are assembled. It is anticipated that fixed test forms of the *NGIA* will be used actively no more than twice before they are refreshed with new items of the eligible item pool and that a design for refreshing forms will rotate a percentage of items and stimuli in and out to maintain security.

17. Please describe how data privacy, data ownership, and data security are assured.

    These considerations are determined by state and local policies though they are generally governed by FERPA requirements. The *NGIA* will implement data structures and policies consistent with Iowa code and implemented by the Department of Education.

ITP has adhered to the position that ultimate ownership of assessment data remains with district superintendents. This position defines the current assessment program. Each superintendent has the capability, and responsibility, to delegate data access to educators in the district. ITP provides a number of pre-defined user roles which allow superintendents (or their designees) to limit educators' access to only that sensitive information which they need. User roles may be expanded, reduced, or cancelled at any time.

Data security is governed by a user ID/ password system most recently evaluated and accepted during a Fall, 2013 University of Iowa Internal Audit. Our systems reside within the University of Iowa server "space", and are continually monitored for system stability and security.