

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

COMMUNITY COLLEGE COMMENTS AND CONCERNS:

**English Language Acquisition**

- ⇒ Level 4 is the appropriate level to exempt from developmental work at the college.
- ⇒ Level 3 students should be subject to college placement testing.
- ⇒ All non-native speaking students should be tested for placement speaking and listening before exempted from developmental work in English Language Acquisition. In native speakers the discrepancy between these communication modes are likely to be less different than for non-native speakers.
- ⇒ The materials say that multiple measures will be used. If portfolios and other systems are used by individual school districts, the products of writing and (speaking videos) will vary widely depending upon how much and the timing of coaching. Dishonesty and “too much help” are the pitfalls of portfolios as an alternative measurement method. The team was also concerned about the cultural bias that might be exhibited by the examples, situations or cultural or religious references in standardized testing questions or foils. Particular care needs to be exercised so that data are accurate no matter what the cultural background of the students.
- ⇒ Another comment received from one of our English faculty members. She is concerned that the high school teachers will simply "teach to the test" with respect to Smarter Balanced. She also points out that, from a historical perspective, the more we assess students -- particularly at the K12 level -- students seem to be *less* prepared in the area of reading and writing. She asks whether the assessment initiative will actually contribute to an additional *increase* in the number of underprepared students in the areas of reading and writing.

**Mathematics**

- ⇒ One of our math faculty members has expressed concerns about students who obtain the appropriate level of "college readiness" in math during their junior year, but who nevertheless choose not to take a math course during their senior year. During this "down time," the student's assessment score, determined in the 11th grade, might no longer accurately reflect math "college readiness" by the time they enter college nearly two years later.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

PUBLIC UNIVERSITIES COMMENTS AND CONCERNS

University #1

**Context**

The Smarter Balanced Assessment Consortium project will provide both opportunities and challenges for higher education in Iowa. Though the discussions between Smarter Balanced and higher education in Iowa have just begun, many changes, from admissions' policies to educating future teachers, will be necessary to align higher education practices with the Smarter Balanced Assessment. Clearly, higher education must play a prominent role in the on-going discussions, development and implementation of Smarter Balanced Assessment. In the present document, we cannot address all aspects of the impact; instead we will focus specifically on the task at hand, to provide an evaluation of the "Initial Achievement Level Descriptors and College Readiness Policy" with a special focus on the 11<sup>th</sup> grade assessments and the level 3 and 4 implications.

Although there are concerns about the achievement level descriptors, it should be noted that there are a number of opportunities and benefits related to the implementation of Smarter Balanced Assessment.

**Positive attributes:**

- The implementation of Smarter Balanced would encourage accountability in K-12 education.
- Proficiencies in the content areas of ELA/literacy and mathematics would be demonstrated.
- Assessment would be carefully and systematically aligned with the Common Core State Standards.
- The design of a conceptual framework for the assessment system accompanied by clear definitions of terms used in assessment documents and the development of achievement level descriptors (ALDs), gives coherence to the content of the document.
- The classification of the ALDs into four types (nice small number): Policy ALDs, Range ALDs, Threshold ALDs, and Reporting ALDs and the organization of the ALDs in tabular form by type, use, purpose, and intended audience, together make the document easier to read and understand.
- The decision to report outcomes in terms of four (another nice small number) levels of achievements, Level 1, Level 2, Level 3, and Level 4 is highly laudable.
- The small number of sample test items which Smarter Balanced has released to the public indicate, if only partially, the promise of an assessment regime that is aligned with the CCSS.

This response is divided into three parts. After an initial discussion of our general concerns regarding the overarching description of the college readiness policy, we provide more specific comments on the ELA/literacy and mathematics ALDs.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

**PART 1: Response to “Initial Achievement Level Descriptors and College Readiness Policy”**

The common introduction to the content specific ALDs provides an overview of the Smarter Balanced initiative as it relates to the development of a common vocabulary and achievement level descriptors for both English language arts/literacy and mathematics. Summarized below are our comments, concerns and questions regarding this portion of the document.

Concern:

- We are concerned that designating 11<sup>th</sup> grade students as college-ready will have the unintended effect of redefining the length of a high school education to be basically three years, as opposed to the current four years, and treating the senior year as a freshman year in college. In a bid to have as many students score at Level 3 or 4 as possible, School districts will push high school teachers to speed up the pace of instruction in order to cover the entire high school curriculum by the end of eleventh grade. While this may work well for top tier students, it may not serve the average high school student well. We think this would be regrettable.

Comment:

Eleventh grade has always been and continues to be a pivotal moment in K-12 education. Traditionally, those students planning to pursue higher education begin the selection and admission process at this time. While assessment of grade eleven proficiencies is important, the premise of this process has been that additional gains would be required and achieved in 12<sup>th</sup> grade. If a high score on an 11<sup>th</sup> grade assessment deems a high school student “college ready” rather than indicating that a student is “on track”, we must ask ourselves what is to become of senior year? In other words, are we really moving toward a new K-11 education system?

Concern:

- In the first paragraph under College **Content Readiness**, Smarter Balanced says, “Specifically, a test score that results in achievement levels 3 or 4 will be evidence that the student is ready for credit-bearing coursework and **may** be exempt from remedial or developmental courses.” However, the Table 5, Policy Framework for Grade 11 Achievement Levels, says a student performing at Level 3 or 4 **is** exempt from developmental course work (contingent on evidence of continuing learning in Grade 12). Table 5 goes on to say in reference to students scoring at Level 3, “Colleges **may** evaluate additional data to determine student placement in advanced courses beyond initial entry-level course.” The phrases “may be exempt” and “is exempt” mean different things, so it is unclear what the intended meaning is.

Comment:

The document makes vague and seemingly contradictory statements regarding the “exemption of developmental coursework.” Take for example the following statement:

Representatives of higher education have been working closely with Smarter Balanced in the development of the Smarter Balanced assessments. This partnership is important because **a primary goal of Smarter Balanced is that colleges and universities use student performance on the assessment system as evidence of readiness for college.** Specifically, a test score that results in achievement levels 3 or 4 will be

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

evidence that the student is ready for credit-bearing coursework and may be exempted from remedial or developmental courses. (p. 5)

Compare it then to the following:

Smarter Balanced recognizes that college readiness encompasses a wide array of knowledge, skills, and dispositions, not all of which will be measured by the Smarter Balanced assessments. As a result, Smarter Balanced narrowed the focus of its college readiness definition to content readiness in the core areas of ELA/literacy and mathematics (see Table 4 below). Further, **Smarter Balanced recognizes the limits of relying on a single test score for making high-stakes decisions and fully supports the use of multiple measures to determine student course placement in higher education.** (pp 5-6)

It remains unclear whether or not the use of multiple measures when evaluating a student's ability is being emphasized. While much of the narrative description cited above speaks to the possibility of using multiple measures, Table 5 clearly states that the Level 4 student "is exempt from developmental course work." We are left to wonder whether or not Level 4 students "may" or "will" be exempt from developmental course work.

While one might assume that a Level 4 test taker would succeed in an entry-level credit bearing college course, the reality is that being "college ready" does not guarantee success. What happens when a 1<sup>st</sup> year college student who earned a Level 4 ranking fails an initial entry-level credit bearing course? In this particular context, might then the university suggest that remediation take place? If so, would we then be in violation of our own policy? Would this lead students and parents to question their responsibility in paying tuition for such courses?

The process in determining a student's ability in any one content area is certainly difficult, but does not even come close to the complexity of determining one's level of overall college readiness. It is not uncommon for a student to demonstrate academic readiness within a standardized testing environment and then go on to be incapable of actually performing at that proficiency level within the real world context of higher education.

At present the university uses a multi-faceted approach in evaluating a student's readiness. Based on an analysis of a student's ACT composite score, high school rank, GPA and number of high school core courses taken students can be admitted conditionally or unconditionally. While the university could continue to use a balanced approach to evaluating students with a Level 1, 2, and 3 test score, the same does seem true for Level 4 students. At present it is impossible for us to know whether or not this will be problematic as we do not yet know how many students will earn a level 4 ranking.

In sum, Smarter Balanced says it "recognizes the limits of relying on a single test score for making high-stakes decisions and supports the use of multiple measures to determine student course placement in higher education." We are concerned that Smarter Balanced may be understating the potential impact that its assessment system will have on admissions decisions and placement of students in courses in higher education. Because the CCSS Initiative was a state-led initiative coordinated by the National Governors Association (NGA), the assessment systems which Smarter Balanced and the Partnership for Assessment of Readiness for College and Careers [PARCC] are developing to assess student performance on the CCSS will in all

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

likelihood be perceived by the public as having the imprimatur of the state governments, if not of the federal government. These assessment systems will be viewed by the public as having higher standing than familiar assessments such as the ACT or the SAT. Admissions decisions or placement policy that seem at odds with the Level 3 or Level 4 recommendations are likely to engender fierce opposition from the public. We are concerned that the interpretations of Level 3 or Level 4 proposed by Smarter Balanced will likely expose higher education institutions to a public relations nightmare.

Concern:

- It may not be possible to create a single definition of college readiness that speaks to the diversity of higher education institutions, visions and practices.

Comment:

General concern that an overarching college readiness definition combined with an attached policy will diminish the understanding of the diverse nature of institutions of higher education. Creating one definition of “college readiness” that applies to any and all institutions of higher education is problematic. .

What this test assures is that students meet high school (11th grade) common core standards and, in some cases, excel at these standards. Why make any implicit promises about college readiness given the different expectations of various colleges and the need for not just academic, but also social and emotional preparedness? A different term, such as "high school fluent" makes the only promise such a test can make--that the student has met or exceeded the expectations for an Iowa high school curriculum

The institutions of higher education are as diverse as they are numerous. Choosing the “right college” is a difficult task that should not be minimized. This is not a choice or decision that we can be willing to standardize, as each institution seeks to create a *unique* educational experience for its students.

**PART 2: Response to ELA/Literacy ALDs (specific focus on 11<sup>th</sup> Grade)**

Summarized below are our conclusions regarding the initial achievement level descriptors (ALDs), the sample question, and the preliminary test blueprints developed for ELA/Literacy by the Smarter Balanced assessment consortium.

Positive attributes:

- Well aligned with skills associated with the Common Core Standards
- Some elements of formative assessment included – real writing assessed
- College readiness assessment attempted

Concerns:

- Heavy reliance on summative assessment in ELA/Literacy is unsupportable
- Speaking claims not supported in the test design as described
- The writing tasks include no creative writing contrary to claims of “a range of purposes”
- Cultural differences and ELL proficiency could be a factor in test scoring of performance tasks
- Computer adaptive testing raises questions
- Grade 8 and 11 ALDs are the same in many cases

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- Technology use in document design and research skills cannot be well assessed in timed, administered test
- The expectation that students deemed “college ready” in 11<sup>th</sup> grade ought to fulfill college-level courses in 12<sup>th</sup> grade is deeply problematic.

Comments:

The Smarter Balanced assessment of ELA/Literacy presents a step forward in some aspects of student evaluation in the area of English education. This assessment is a much better match with the Common Core standards than previous assessment tools such as Iowa Test of Educational Development (ITED). The Smarter Balanced assessments make an effort to move beyond summative assessments by including “formative tools and practices” though clearly stating that these are not assessments. They have included “performance tasks” that require students to engage in writing and listening to determine student skill level. Speaking, however, is left out of these performance tasks despite the claim that the Smarter Balanced assessments will assess whether “students can employ effective speaking and listening skills.” While this inclusion of formative “tools” is a step forward, it is hardly the “Balanced Assessment System” claimed in the Test Blueprints document. Further it is not clear what weight the performance tasks will have against the traditional summative assessments.

The Smarter Balanced assessments make the following claim about writing, “Students can produce effective and well-grounded writing for a range of purposes and audiences.” At no time during a study of these documents did I see any performance tasks relating to the writing of any creative text. Little, if any, information was discerned concerning what specific topics students would be asked to compose. The choice of topics is a difficult one when considering the cultural and familial differences of the test takers. Such differences could advantage or disadvantage students taking the tests.

While this problem is not unique to the Smarter Balanced testing, the application of this test to English Language Learners in their second- or third-language clearly disadvantages them in skills related to analysis and research, skills they may excel at in their first-language. Including students with limited English skills in the testing lowers the norms for other test-takers and does not accurately assess ELL student skills.

The Smarter Balanced assessments make use of computer adaptive testing. Allowing for the assessment of the full breadth of the content taught without requiring each student to complete all of the items on all of the content. Briefly the computer will select what questions to offer to a student based on answers to early questions. Theoretically a student who misses items early in the exam could be shifted to a lower score bracket as the computer adjusts the content of the test. The advantages and disadvantages of this system are complex and need further study.

Considering the specific ALDs, we see two potential problems. First, grade 8 and 11 ALDs are the same in many cases. We would have to trust test designers to determine text levels that are appropriate for each grade level. This would depend upon the student's individual interests and knowledge base. What is an easy text for a child with much exposure to, for example, antique collection, may be mystifying to another child. Plus, we would have to trust the test evaluator to identify and separate out different targets within a sample student essay. In many cases, the targets are not easy to isolate. In the sample question, for example, a child might not think to delve into the grandmother's motives, though this would show the ability to draw inferences. The obvious answer to the question is that Naomi learns how Grandma Ruth was named. But

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

a level 4 response would infer that Naomi learns what Grandma Ruth values (childhood play, her granddaughter's feelings). Would a child know to develop the answer in greater depth or would the child be more worried about time and unclear about expectations on this test?

Secondly, the test is limited in its ability to assess several common core standards: speaking (not assessed at all), research (very difficult to assess outside of a longer research project in which students make choices based on a full range of library and on-line materials), and technology use in documents design (also, very difficult to assess within a timed test in which students have very limited technological tools). It may be better to leave these standards to be assessed by individual teachers, rather than this standardized format, than to present an unrealistic situation and consider it representative of a student's skills.

Rating the college readiness of students in the area of ELA/literacy and mathematics is a worthy goal. Smarter Balanced Assessment Consortium states that representatives of higher education have been consulted in the creation of college content readiness definitions. No listing of these representatives was included in the documents reviewed. Students entering higher education do present a wide variance in their preparation for college work. There are many reasons for this beyond how students are prepared in high school. Some students with skill deficiencies are entering college from community college or are non-traditional students who have delayed entering college for a variety of reasons. Stated explicitly in the College Content Readiness section of the Preliminary Test Blueprints document (page 6) these assessments are "... not designed to inform college or university admission decisions. This declaration is troubling given the high probability of their use for that exact purpose.

Finally, we have many questions regarding how the test would impact school curriculums, such as whether items not assessed are minimized in the curriculum (i.e. speaking skills and knowledge of literary traditions) and whether teachers in disciplines outside the language arts will help students to develop skills in analyzing and responding to informational texts, or whether ELA teachers will have to shoulder this in addition to the response to literary texts.

Because reading and writing are everyday activities and not clearly sequential in the way that math can be, declaring a student "college ready" in 11th grade under-rates the degree to which students can benefit from not only 12th grade writing but also a college writing course. Even competent writers can improve tremendously in writing classes. If we must provide for earning college-credit for writing in high school, AP exams are far more demanding than dual enrollment courses typically are.

### **PART 3: Response to mathematics ALDs (specific focus on 11<sup>th</sup> Grade)**

We applaud the Smarter Balanced Consortium (Smarter Balanced) for undertaking at breathtaking speed the task of developing one of the assessment systems aligned to the Common State Standards (CCSS) (the other being PARCC). In the course of developing the assessment, Smarter Balanced has released several documents for public review and has asked for feedback. One of these documents is titled, "Initial Level Descriptors and College Readiness Policy." What follows is a critique of this document, with a special emphasis on issues related to mathematics. After providing a list of more general overarching concerns, we provide a more detailed analysis of mathematics ALDs. The critique identifies what we see as the strengths and weaknesses of the document.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

Over-arching Concerns:

- At the three Regent universities in Iowa we have been pushing to reverse what we see as a troubling but growing trend in which many high school students take the required three years of mathematics in their first three years of high school and stay away from mathematics courses in the fourth year. The result is that by the time the students get to college, they have forgotten a lot of the mathematics they have learned in high school. We are concerned that a college-ready designation in the eleventh grade may send the wrong message to some students and parents that they can sit out, take it easy, or otherwise concentrate on sports and other extra-curricular activities in their senior year.
- As described in the document the assessment system is not diagnostic, and offers the student who scores at Level 1 or 2 little guidance on a way forward, e.g., by recommending possible remediation pathways leading to retesting. In its present form the document takes no firm stand on retesting; it only suggests that local jurisdictions may wish to consider retesting at the end of the 12<sup>th</sup> grade. Smarter Balanced needs to clarify its position on retesting.
- We have implemented placement tests at the three Regent universities for incoming students. We are concerned about the potential public relations nightmare which would inevitably result from cases of students who come from high with a level 3 or 4 score but do poorly on our placement test. Clashing indications of college-readiness will be confusing to students and parents and will undermine the legitimacy of our placement policies, even when these policies are based on an analysis of performance (not sample, but population) data of the type of student we serve.

Mathematics ALDs

The Smarter Balanced assessments represent a unique opportunity for advancing mathematical learning throughout K-12. The alignment of the assessments to the elements of the Common Core Curriculum (including both the Content Standards and the Standards for Mathematical Practice) will help to ensure that the knowledge and capacities being developed by teachers and students in accordance with the Common Core will ultimately be valued.

While the Smarter Balanced assessments show much promise in terms of providing detailed feedback on student understanding of important mathematical concepts, questions and reservations regarding policy implications for higher education remain. In the next few paragraphs, we will describe our thoughts on the strengths of the assessment, along with our questions and concerns regarding the College Content Readiness portion of the Smarter Balanced Mathematics Achievement Level Descriptors (ALD) document.

First and foremost, it would be hard to overstate the impact an assessment system of the type contemplated by Smarter Balanced and the PARCC assessment systems will have in moving mathematics education forward toward a vision more closely-aligned with that of the National Council of Teachers of Mathematics. While many teachers have in the past implemented changes in their teaching in an attempt to align with recommendations of promising practices, such changes have often proven difficult to maintain because of the lack of alignment between practices supported by research and the knowledge measured through standardized assessment. The knowledge evaluated in the released sample items appears to align very closely with research on mathematics education instruction and assessment. In informal conversations with mathematics teachers about the Smarter Balanced sample items, the teachers have expressed concern over the gap between their current instructional practices and the implied change (as embodied in the tasks) that will be required to increase the rigor in their

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

classrooms. The performance task, Crickets, provided in the sample items requires students to understand and interpret linear regression using multiple measures and to compare best-fit models. In addition, the task requires students to solve a problem involving a level of complexity well beyond that found in a typical one-minute standardized assessment question.

Sample items indicate the value of the Standards for Mathematical Practice. Tasks such as sample item 43028 allow for the possibility of multiple correct solutions based on different, yet acceptable, mathematical justifications and reasoning. The task requires students to be able to “Construct viable arguments and critique the reasoning of others” (CCSS.Math.Practice.MP3), a skill higher education institutions value and want incoming students to possess. Another potential strength of Smarter Balanced is its willingness to allow students to use interactive technology to explore and reason with and about the content of the question. Sample item 42968 demonstrates the power of this approach and how it may change the style of more typical assessment questions. The balance between technologically-enhanced questions and questions that limit calculation tools is noted in items such as 42906.

While the strengths noted in the sample items give promise to the potential impact of Smarter Balanced assessments on K-12 classrooms, the items along with their rubrics and the ALD document also raised concerns and prompted further questions. These concerns and questions (which arise from the lack of sufficient released information) are noted below.

Concerns:

- Of primary concern is the computation of achievement levels for students, as it has clear policy implications for institutions of higher education (as noted in bullet 2). It is unclear how the points indicated on the rubrics are explicitly connected to the calculation of a Level One, Two, Three or Four. What will students need to demonstrate to earn a Level Three or Level Four on a claim? How will claim scores be combined into an overall score for the student? By reading the material provided, looking at the sample items and studying the accompanying rubrics, it is difficult to measure whether students will be “college-ready” or ready for “credit-bearing coursework” without much more information and explanation. (We reproduce the description of the levels here for reference.)
  - The Level 4 student demonstrates deep command of the knowledge and skills associated with college and career readiness.
  - The Level 3 student demonstrates sufficient command of the knowledge and skills associated with college and career readiness.
  - The Level 2 student demonstrates partial command of the knowledge and skills associated with college and career readiness.
  - The Level 1 student demonstrates minimal command of the knowledge and skills associated with college and career readiness.

Unless the concern mentioned above is addressed, the following quotation from the ALD document is problematic.

“Specifically, a test scores that results in achievement levels 3 or 4 will be evidence that the student is ready for credit-bearing coursework and may be exempted from remedial or developmental courses.” -p. 5.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- We could not tell how Smarter Balanced determines an achievement level 3 or 4 in sample items and we did not see enough evidence that students earning these two achievement levels are necessarily ready for the indicated coursework or coursework exemptions. That said, we note that in making the following statements Smarter Balanced seems to be sounding a cautionary note, which would be laudable if the statements didn't seem to contradict rather than complement each other.

“As the ALDs are the initial version, the definition and policy framework represent initial work that will be refined once student performance data are collected and analyzed.” –p. 5

“Further, Smarter Balanced recognizes the limits of relying on a single test score for making high-stakes decisions and fully supports the use of multiple measures to determine student course placement in higher education.” – p. 6

“Finally, the college content-readiness definition and policy framework are not designed to inform college or university admission decisions because the Smarter Balanced assessments are not being developed for that purpose.” –p.6

- The rubrics that accompany the sample items provide possible solutions but lack depth in content, given the open-ended nature of some of the sample items. Questions remain regarding exactly how points will be earned and what will determine the sufficiency of a justification.
- The rubrics align with claims, yet it is unclear how the points identified in the rubric contribute to receiving an ALD. (For reference, we reproduce the claims as noted below.)
  1. Concepts and Procedures—Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.
  2. Problem Solving—Students can solve a range of complex, well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.
  3. Communicating Reasoning—Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
  4. Modeling and Data Analysis—Students can analyze complex, real-world scenarios and construct and use mathematical models to interpret and solve problems.
- Institutions of higher education may want more specific information about mathematical content (similar to subsection scores on other standardized tests). Will this information be possible to get if the reported ALD is given for the Claims stated above?
- While the sample test items are helpful indicators of the style of questions by which students will be assessed, we are concerned that such a relatively small sample of items makes it difficult to draw conclusions about the rigor of the content of the assessments.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- Similarly, while the sample tasks are rich as has been noted above, the mathematical content knowledge necessary to solve them does not appear to reach the threshold of an upper-level high school mathematics class. Will these concepts, which are present in the Common Core, be assessed as suggested in the ALD document table? If so, what will the questions and the criteria for evaluations look like?
- While the depth of technology usage throughout the assessment should be commended, we have concerns regarding student access to the technology required to implement the assessment. In a state like Iowa, there exist rural districts that will be challenged to provide the hardware and connectivity required to complete the assessment. What is Smarter Balanced doing to ensure that students have access to the appropriate technology needed to administer the assessments?
- In a similar vein, it is important that assessment procedures align well with methods of instruction. Given that the Smarter Balanced assessment is completed through interaction with technology, how can we ensure that students will have access to and experience with similar technology during instruction prior to engaging in such a high-stakes assessment, so that assessment comports with instructional practices?

The Smarter Balanced assessment system represents a unique opportunity to move mathematics education forward in the US. We recognize and appreciate the myriad positive elements of the proposed assessments, but we remain concerned about some of the policy implications for higher education. We hope that the lack of detail and the seeming inconsistencies that make these policy elements of the document problematic will be addressed as the document is revised.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

University #2

On December 11, 2012 seven members of the English Department at the university, including two faculty from the Speech Communication program, met to discuss the Initial Achievement Level Descriptors and College Readiness Policy. The group had read the documents on the English Language Arts ALDs—the introduction and the 11<sup>th</sup> grade Levels—with care. Their discussion was supportive of the ambition of the national standards project to sustain discussion and focus among Language Arts teachers around sophisticated concepts concerning student mastery of reading, writing, listening, and speaking and of the critical thinking processes that provide a foundation for that mastery. The committee was especially impressed to see attention to multimodal communication in some of the ALDs. They did express deep concern about the methods of assessment and are eager to hear additional conversations about the resources and follow up that will be provided to transform learning environments to increase the potential for student success.

The committee saw much to admire in the draft document, but also much of concern. Among the positive issues discussed, the committee saw the thrust of these descriptors as appropriate, even ambitious, levels of achievement; the bar is not set low here. The general consensus was that if students came into the college composition classroom with Level 3 proficiencies based on an excellent assessment, they would certainly have the knowledge base necessary to be successful in first-year English. The committee voiced concerns that a flawed assessment process, one with “false positives” that identified students as having Level 3 Achievements when they, in fact, could not demonstrate such mastery outside of the assessment, could have a detrimental impact on the availability and support of the excellent college preparatory (aka: “remedial”) coursework that currently provides a pathway to success for many students.

In terms of feedback on the specific document, the group found that the devil, of course, was in the details. In the rest of this report we will highlight the central areas of concern. The first set of issues address broad concerns and the second section looks to specific claims.

## I. Broad Concerns

- “College Readiness” Label is Problematic
  - The broadest area of concern is in the consequences of the vocabulary of “college readiness.” Others, certainly, have pointed to complications of identifying a student to be “college ready” in English (or math) or to be deemed not college ready in the 11<sup>th</sup> grade.
    - Those deemed “college ready” could lose ground during the 12<sup>th</sup> grade year if the label leads to a sense that they already have what is necessary to college success and leads to less ambitious coursework during the senior year.
    - Those deemed not “college ready,” could lose sight of and hope for their ambition; the committee was especially concerned about the differential impact this label may have among women (particularly in mathematics), among lower income students, and among potential first generation college students.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- The impact of the “college readiness” label on student and parent expectations is also a concern.
  - College and University placement exams help inform instructors and students of university specific requirements that support student success in particular coursework.
  - Will the “college ready” label encourage students to reject the results (or the costs) of placement exams or reject opportunities for non-credit bearing “remedial” course work that more specific assessments recommend? Will colleges be constrained in offering non-credit bearing course work that has a proven track record for supporting later student success?
  - Will being deemed “college ready” increase parent and student demand for credit-bearing coursework during the senior year exacerbating the complications we are finding for students with excessive early credit? (We note that the evidence on early credit suggests no correlation between extensive early credit and shortened time to graduation).
- In the vocabulary that frames this assessment and the report that students receive with their results, the committee would much prefer language that captures the development and the process and clarifies that a fundamental goal of this measure is to underscore what interventions the student needs during the senior year.
  - Perhaps revise to: “student is on target to approaching readiness for credit bearing courses” or “student should take coursework or seek assistance in X [reading, analysis of texts, vocabulary] to continue to approach readiness for credit bearing courses.”
- Lack of Information about the Assessment is Problematic
  - English assessments are notoriously challenging and the committee had trouble envisioning an assessment that could determine the Claims and Targets in the ALDs. Several of them seemed like the kinds of assessments that would require portfolio work rather than standardized tests and writing prompts.
  - We hope that the process of discussion and comment among a wide range of stakeholders that is being modeled for the ALDs is also part of the creation of the assessments. We believe that pilot testing and plans to follow-up on the college success rates of students who took the assessments will add quality and credibility to this important national initiative.
  - Within the discussion of each of the Claims and the ALDs, committee members expressed concern about the assessments. That does not mean assessment should not be attempted, but the ability of the committee to comment on the Targets and Levels in the document was problematic due to the absence of any details on the assessments themselves.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- The challenge of the assessment is most vivid in Claim 3 on listening and speaking; though technology can help create a good listening skills assessment, speaking presentations and use of technology to support oral presentations offers a much great challenge and may not be viable for standardized assessments.
- Order, Specificity and Language of the Rubric is, at times, problematic
  - Some members of the committee felt strongly that the rubric should move from 4 to 1. The first column on the left should indicate the highest level of achievement, the next column to the right should be Level 3 (sufficiency), with the last column on the right the Level 1, minimal command, column. The Levels are not cumulative; they are different so moving from Left to Right made more sense to most members of the committee. Rubrics are typically written from high to low (left to right), so this format will be more compatible with current educational philosophies and norms.
  - The Cut Score lists seemed to be different and should perhaps be set off differently in the document. They are not consistently cumulative, for example on p. 90 the Level 2 ALD includes doing a task “weakly” and that would not be something we would want to carry over to the Level 3 cut. On the other hand, on that same page, we would want anyone entering level 4 to also carry over all of Level 3—if not, we are expecting much more of Level 3 than of Level 4. It may make sense to keep the Levels as distinct, but the cut offs as cumulative and place them differently in the document.
  - Occasionally, the effort to be specific about issues, such as figurative language, led to e.g. lists, while other parenthetical lists were not marked as *exempli gratia*, when perhaps they were intended as such. This led to occasional concern, as will be discussed below.
  - Phrasing the levels as “students should be able to read” rather than “students read” or “students produce” created confusion and anxiety among committee members. The “should be able to” language may make sense for the list of Cut Scores, since those seem to point to the transferability issue—what it means to be in Level 2 or Level 3 in terms of what the student can accomplish. The assessment itself should aim to identify the Levels and Targets based on what the student has actually done based on the evidence provided by the assessment (e.g. “The student applies narrative strategies, text structures and transitional strategies for coherence....”).

## II. Concerns Noted within Specific Claims

- Claim 1 Text Consumption [Note: the group was impressed by the effort to divide up the task in working with Literary vs. Informative texts]
  - Reword throughout the section: “Students read to comprehend....” (instead of “students should be able to”) and “Students identify minimal textual evidence...” (instead of “students should be able to identify”)

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- Target 4, first list does not use “e.g.” Was it intended to or should “etc.” be added to the list in the parenthetical that follows “inferences or judgments made”? In the Target, dramatic irony, humor, etc. are introduced with “e.g.” but that disappears from the language in the statement of Level 3 and 4.
  - Target 7, there was strong interest in including metaphor in the list of sample figures—hyperbole struck all as overused and much less interesting in these example lists.
  - Explanations for students at Cut scores: These descriptions, p. 83 are quite different from those on p. 90. They, clearly, do not accumulate levels of achievement but simply reiterate the partial, sufficient and strong designations discussed in the Targets and Levels above. Consistency is needed.
- Claim 2 Text Production
    - Reword the Levels throughout the section: . Instead of “Level 1 students should be able to produce simplistic and poorly-supported writing without consideration of purpose and audience,” (which implies a goal of wanting students to produce poorly-supported writing), change the “should be able to” to the verb “produce.” Now the text will read: “Level 1 students produce simplistic and poorly-supported writing....” In other passages this rewording will result in phrases that begin with “Students apply narrative...” or “Students demonstrate....”
    - Sub-headings, like those in Claim 1, are needed for Claim 2 to distinguish between Informative Writing and Argumentative Writing.
      - The absence of research from the discussion of argumentative writing is a concern.
      - Consider folding in Targets from Claim 4 (see Claim 4 discussion below)
    - Ambitious goals; the committee had major concerns about how an assessment could measure such accomplishments. Tracking revisions is typically portfolio work.
    - “Grade appropriate” standard English usage, prompted an active conversation in the group. Helping students see writing as a process where one can always improve and where shifting contexts and purposes can bring new “rules” into play is helpful.
    - Unlike for Claim 1, the Cut Scores explanation for Claim 2 seem to be mostly cumulative—it seems intuitive that Level 3 must be accomplished as well as what is under Level 4 to meet the Level 4 cut score. But the connection is not as clear between Level 2 and Level 3. Again, what is needed is consistency.
  - Claim 3 Speaking and Listening
    - The major concern here is that Claim 3 addresses Speaking and Listening Skills, but the only Target listed is #4 and addresses Listening only. Given the complications of oral assessments, it would seem that Claim 3 may need to be

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

revised for the purposes of the Smarter Balanced Assessment project. Speaking remains part of the common core state standards, but it seems likely that establishing student competencies in “presentation of knowledge and ideas” will require some measures and teacher evaluations outside of this specific assessment process.

- Overall, Claim 3 Level Descriptors were overly complex and hard to understand.
  - Level descriptors for this Claim in Grade 11 are the only descriptors that clearly refer to the Common Core [ <http://www.corestandards.org/ELA-Literacy/SL/11-12> ]. Consistency in reference to those standards would be helpful.
  - Reword Levels in the section: “Students accurately synthesize content from diverse sources materials....” (instead of “students should be able to”).
  - Change SL-2 from “provide insightful orchestration of diverse source materials” to “provide insightful integration of diverse source materials.”
  - SL-3 Level 1 was especially confusing to committee members: what does “differentiating among points of view” look like?
  - Revise SL-2 to: “students can identify the sources a speaker is using to support a point of view.”
  - Revise SL-3 to: “students can identify/articulate a speaker’s point of view.”
- Level Descriptors and Expectations at Cut Scores were largely indistinguishable; causing committee members to wonder about the function of these two lists.
- Claim 4 Research and Information Literacy
  - Level 4 ALDs for this Claim struck some members of the committee as overly ambitious. Some saw those ALDs as descriptors that they hoped a strong college graduate might achieve.
  - Overlap among Targets 2, 3 and 4 is some concern. Target 3 is the skill that will be easiest to assess and success in it is clearly woven into the Level 3 and 4 descriptors for Targets 2 and 4.
  - The fix may be to fold Claim 4 into Claim 2 above.
    - Claim 4 and its Targets are part of the “Research to Build and Present Knowledge” category of the Common Core Standards. It is a challenge to separate the ability to tackle the writing tasks discussed in Targets 6 & 7 for Claim 2 from Targets 2, 3 and 4 here in Claim 4.
    - If separating out the Targets for Claim 4 is done to demonstrate that oral communication requires mastery of information literacies as much as does written communication, consider revising the standards to reflect “Composing” as a goal, rather than dividing across speaking and writing.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

**Smarter Balanced AC  
Initial Achievement Level Descriptors and College Readiness Policy  
Mathematics**

These comments were discussed by the 'mathematics education faculty' of the Department of Mathematics at the university. They reflect common thoughts and concerns of these faculty members.

**Main Concerns**

1. The Concept of 'College Readiness'

As we have stated before, the SBAC concept of 'college readiness' based on one 11<sup>th</sup> grade test is bound to create misunderstandings and misguidance for students (and their parents). The section 'College Content Readiness' in [1] proposes consequences from the SBAC 11<sup>th</sup> grade exam, but without giving any reasons why such consequences may be warranted. Table 5 on p. 6 of [1] mentions 'additional data (courses completed, grades, placement test scores, etc.)' only for placing students in 'advanced courses beyond an initial-entry level course' if students pass the SBAC 11<sup>th</sup> grade exam at levels 3 or 4. Given experiences with other exams, such as ACT or SAT, and their inability to properly place students in entry level courses, the consequences in Table 5, if actually implemented, are likely to cause many students to fail their first college course, and hence to jeopardize their successful college education.

**We recommend** that the language 'college readiness' be abandoned and replaced by 'proficient for 12<sup>th</sup> grade work'. We also recommend that SBAC look at the 12<sup>th</sup> grade work that is possible under CCSS (e.g. the 'fourth course', see [2], or specific AP and IB courses) and specify for which work the 11<sup>th</sup> grade SBAC test is supposed to be a good predictor, and why.

2. The Need for Placement Exams

As mentioned above the section on 'College Content Readiness' (see [1], p. 5-7) postulates consequences of the SBAC 11<sup>th</sup> grade exam that have no basis in research and/or experience: The recommendations of 'exempt from developmental courses work' and of not using placement exams for placing students in specific entry level college courses is premature. They also roll back years of experiences at large public universities with well-functioning placement exams that have increased student success rates and retention.

**We recommend** that Table 5 of [1] (together with some of the wording in this section) be changed to reflect the usefulness of mathematics placement exams. We also recommend that SBAC acknowledges the fact that some placement exams are very successful and that these should continue, i.e. they should not be replaced by the SBAC 11<sup>th</sup> grade exam.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

3. Developmental (or Remedial) Courses

The publication [1] uses the term ‘developmental course work’ without defining which college course work is actually considered to be developmental (or remedial) for the purpose of the text. An inspection of CCSS Mathematics (standards items only, not (+) items) shows that almost all of the material that is now included in a ‘college algebra’ course is contained in the CCSS. Does this mean that standard ‘college algebra’ courses should be classified as ‘developmental’ in the future? If this type of courses remains ‘college credit bearing’, i.e. if they continue to be classified as entry-level college courses, then Table 5 on p. 6 of [1] is meaningless, since students choosing such a course would, de facto, be doing developmental course work.

**We recommend** that ‘developmental course work’ be made specific, in particular with respect to courses like ‘college algebra’ and similar.

4. Coverage of CCSS Topics

As we state below, and as others have argued before, the ALD document in its description of Grade 11 expectations is not sufficiently specific to allow for an assessment of the scope and potential impact of the SBAC 11<sup>th</sup> grade exam. If the ALDs remain in this state of vagueness, it is not clear what the exam actually will measure, and what possible consequences of such measurements may be. In particular, none of the claims in Table 5 on p.6 of [1] can be supported with what is known about the exam from this document.

**We recommend** that the Grade 11 descriptions in [1] (see p. 28 – 35) be made precise, in particular in Claims 2, 3, and 4. Furthermore, we recommend that the totality of SBAC 11<sup>th</sup> Grade exam questions cover all of the CCSS standard items (i.e. without (+) items), including geometry and trigonometric functions.

**Some Detail Comments Regarding Claim 1, p. 28 – 32**

This part of [1] simply lists the main areas from CCSS, with some specific goals in Column 1. The descriptions in Column 5 (corresponding to Level 4) are generally quite vague and do not give a clear idea of what would be asked in the SBAC 11<sup>th</sup> Grade exam. Examples: “Level 4 students should be able to use properties of exponents to write equivalent forms of exponential functions.”(p. 29) This could be a very simple, but also a challenging problem, depending on the implementation. Or “Level 4 students should be able to rearrange unfamiliar or complicated formulas to highlight a quantity of interest and be able to analyze in context to determine which quantity is of interest.” (p. 29) Again, this is exceedingly vague and the level of intended student understanding cannot be gauged from this formulation.

The area of ‘geometry’ (p. 31) is not specified, except for one target about right triangles. It is not clear if geometric (or other) questions will enter into consideration for Claims 2 – 4. This important area needs to be made precise before the ALD document [1] can be approved.

The area of ‘statistics and probability’ is still very underdeveloped: Level 4 student achievement descriptions only mention ‘interpret data to explain why a data value is an outlier’ (p. 32) None of the core data analysis skills are considered here. If ‘outliers’ is what statistics in CCSS boils down to, then we’ll need to have a discussion between SBAC and CCSS authors before we can continue with ALD plans of SBAC.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

**Some Detail Comments Regarding Claims 2 – 4, p. 33 – 35**

In these parts of [1] no specific content areas of the CCSS – Mathematics are given that will be used to test the claims. Hence it is not clear if content coverage for these claims will make up for inconsistencies and gaps in the ALDs for Claim 1, see above.

As we mentioned in Item 4 above, at the current level of development of the ALDs for the SBAC 11<sup>th</sup> grade exam it is really not clear what the scope and potential impact of the test might be. At this moment, Document [1] should not be approved.

[1] Initial Achievement Level Descriptors and College Readiness Policy, SBAC, 2012

[2] Common Core State Standards for Mathematics, Appendix A

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

University #3

The Department of Mathematics at the university discussed and compared the alignment of mathematics component *Achievement Level Descriptors and College Readiness Policy (ALD)* with the CCSS mathematics documents [http://www.corestandards.org/assets/CCSSI\\_Math%20Standards.pdf](http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf) and CCSSI Mathematics Appendix A.

We evaluated these at the high school level, and 11<sup>th</sup> grade assessment.

The following is taken from CCSSI:

*“The high school standards specify the mathematics that all students should study in order to be college and career ready. Additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics is indicated by (+), as in this example:*

*(+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers).*

*All standards without a (+) symbol should be in the common mathematics curriculum for all college and career ready students. Standards with a (+) symbol may also appear in courses intended for all students.”*

The CCSSI Mathematics Appendix A, the Overview of the Traditional Pathway for the Common Core State Mathematics Standards, (pages 8 and after) explains how to divide the core curriculum into 4 courses: High School Algebra I, Geometry, Algebra II, and a 4<sup>th</sup> course. Although 4<sup>th</sup> course contains only the standards with (+), there are several instances of standards with (+) appearing in the 3<sup>rd</sup> course, Algebra II.

**Below are our comments about math ALD, and its comparison to CCSSI.**

It is our understanding the 4<sup>th</sup> course material will not be covered by SBAC, and that material is for the students to learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics. It is our assumption that SBAC should test the material of the first three high school courses: High School Algebra I, Geometry, and Algebra II.

As we will discuss the details below in (2), about half of the material of the three courses is missing from the current ALD. We hope that this is a working file and a High School Geometry course will be covered by their next attempt. Also, some of the essential standards from Algebra II are not listed, about polynomial functions, algebra of rational functions, and almost all of trigonometric functions.

1. Before we proceed into these details below, we will discuss Table 5 on Page 6 of ALD: Policy Framework for Grade 11 Achievement Levels

Level	Policy ALD	College Content Readiness	Implications for Grade 12 and College Placement
4	Demonstrates deep command of the knowledge and skills associated with college and career readiness	Student is exempt from developmental course work.	States/districts/colleges may offer advanced courses (such as AP, IB, or dual enrollment) for these students. Colleges may evaluate additional data (courses completed, grades, placement test scores, etc.) to determine student placement in advanced courses beyond an initial entry-level course.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- a. Most urgent is the topic of the grade 11 test score of level 4 and level 3 and its designation of “college readiness” of ALD. These messages have to be rewritten. These levels should clearly and forcefully indicate that readiness for college placement in grade 11 means that those students need to take, in the very next year in school, grade 12, the next level higher of mathematics course. That course might be a high school level math course such as an AP calculus course more advanced than the student has already taken, or a college-level class at a local or on-line approved college or university math course, more advanced than the student has already taken. Without this clear recommendation, students might get the grade 11 designation “college ready” by scoring level 3 or 4, then take no math in grade 12, and be significantly behind or disadvantaged in a college-level math class the next year, in spite of already having been designated as “college ready” at the end of grade 11. We know quite well that students forget mathematics if they do not take a math course for a year or two. Such a problem for the student could lead to real difficulties in placement in college-level math classes.
  - b. If a student has a SBAC issued “college ready” designation which is State approved, and finds out that that is not what our university math placement tests are showing, then many situations may occur: The student insists that the university placement is wrong, and the university must follow the SBAC issued and State approved “college ready” designation, and these can escalate to involvement of angry parents, and possibly legal issues.
  - c. There is gap between “College Content Readiness” and “Implications for Grade 12 and College Placement in level 4”. Even if SBAC improves the ALDs to cover all of the first three courses, the students still need to take the 4<sup>th</sup> course (e.g. precalculus), before they can be ready for AP Calculus.
  - d. If the math ALD stays at the current level of coverage, then “Student is exempt from developmental course work.” is FALSE, the student may possibly need to (re)take Geometry or Algebra II or equivalents in college.
2. Here is our list of deficiencies we see in the math ALD, in comparison to the first three math courses of CCSSI. We will refer to Target x from ALD, as well as CCSSI standards numbers x.xx.x. Our list is not in order of importance, but we will follow the orders of ALD and CCSSI, which are the same. Some items with (+) may appear in our list, but only those are listed in Algebra II list according to CCSSI Appendix. The ones without (+) are definitely essential for Algebra II.
- a. Complex numbers N-CN: 1, 2, 7, (+)8, (+)9 are completely missing, but then in Level 4 Target I of ALD mentions finding the complex roots of quadratics.
  - b. Target F has only A-APR.1 (arithmetic on polynomials) taught in Algebra I, but it does not get into A-APR.2, 3, 4, (+)5, 6, (+)7, (zeros of polynomials, algebra with rational functions) but ALD expects in Level 3 Target J that students can solve polynomial and rational equations graphically, and in Level 4 Target M, expects graphing polynomials. Rewriting rational expressions in A-APR.6, (+)7 are one of the weakest topics among all college students.
  - c. Solve systems of equations, A-REI.5-7 is completely omitted.
  - d. Level 3 Target J addresses A-REI.10, but Level 4 Target J is empty, we hope that A-REI.11, 12 will be put there.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

- e. Level 1 Target L has no mention of sequences which is in Algebra I. Levels 3 and 4, in Target L use the expression “key features”, but they stop at domain and range, and they do not include the rest the “key features” such as intercepts, increasing, relative max,...as in F-IF.4.
- f. Level 4 Target M, “trigonometric functions” is missing, but it is in F-IF.7e in CCSSI. As one can see in F-IF.7c, A-APR.2, 3 are essential in Target F.
- g. Level 4 Target N is empty, we hope that F-BF.1.ab, 2 will be put there.
- h. Building new functions from existing functions, F-BF.3, 4a, shifting, flipping, stretching graphs are completely missing.
- i. Linear, quadratic, and exponential models are not addressed separately as in CCSSI. Also, it is not clearly addressed as applications of these functions elsewhere in the ALD targets in a way that we can see.
- j. All of “F-TF trigonometric functions” is missing. The ALD apparently prioritizes trigonometric functions only as they are used in right triangles as in Target P, and nowhere else.
- k. Target O, prove geometric theorems, and Target P, trigonometry on right triangles are the only referrals to the High School Geometry course. This is a major problem. Even if SBAC is willing to provide a level descriptor for Target O, almost all of a HS Geometry course is missing in this ALD, see pages 75-78 of CCSSI: with many targets: G-CO (1-13) congruence, G-SRT (1-11) similarity, right triangles and trigonometry, G-C(1-5) circles, G-GPE(1,2,4-7) equations, G-GMD(1,3,4) measurement, and G-MG(1-3) modeling. If this is an oversight and SBAC is actually planning to give an assessment on the whole HS Geometry course, then they should provide this information in ALD, we will wait eagerly to see it. It is plausible that these topics may be implicitly tested within other contexts. However, we are not examining particular sets of questions, but we are looking at the list of what are targeted to be assessed, in which we would like to see many Geometry targets listed.
- l. Our further examination of the 3-8 grade math ALD shows that some (but little) of the geometry material are covered at a lower level. However, knowing all of 8<sup>th</sup> grade geometry is not sufficient for college readiness, and also the high school students take a High School Geometry course.

Comments:

As several of us being geometers and teaching “proofs” in college for extensive number years, we believe that proving theorems in geometry is the last topic an artificial intelligence based assessment should try. This topic has been taught effectively in some high schools, but not very many. Many students coming to college have never seen proofs in high schools, or they say so because they do not know it at all. These students include about half of math majors, not even mentioning other majors, such as non-STEM. SBAC will do a better job in assessing problem solving in geometry involving congruence, similarity, trigonometry, circles, and other topics from CCSSI at high school level: G-all pages 75-78 of CCSSI, rather than proof writing that may be limited to fill in the blanks.

COMMENTS AND CONCERNS SUBMITTED BY  
IOWA STATE HIGHER EDUCATION LEAD  
JANUARY 14, 2013

We are very concerned about these topics that are cut from the first three high school math courses. It appears that high school geometry and trigonometric functions (as well as parts of polynomials, algebra of rational functions, etc.) are being considered not essential by SBAC for some reasons. We understand that these are not easy for the high school students. However, using expressions such as “college ready” by an assessment actually based on “Algebra I, almost no high school geometry and 2/3 of Algebra II” is quite misleading, and it is not for the benefit of the students.