Building and using a next-generation formative assessment system

Selecting a next-generation formative assessment system that will help increase student success is critically important, and can be challenging. Clearly establishing selection criteria can help. When Agile Mind and the Charles A. Dana Center at The University of Texas at Austin designed Agile Assessment 5.0, we identified core elements that we believe should be represented in a powerful formative assessment tool. The following six-point framework and selection checklist articulate criteria that we consider essential. We hope that they will be useful to school districts making the important choice of which formative assessment system they will use to shape student learning, and to help students succeed on next-generation high-stakes assessments.

1. True next-generation items

Through their novel designs and open-ended nature, these new items are designed to use technology to prompt students to demonstrate their depth of knowledge in new and more dynamic ways, similar to what they will experience on new high-stakes exams.

District teams might consider exploring the following questions:
- Do the assessments reflect next-generation designs?
- How many next-generation items are there?
- What is the evidence that these designs reflect current knowledge of mathematical standards and practice?

Agile Assessment items are designed and developed by the Charles A. Dana Center, pioneers in next-generation assessment, who have led the prototyping of PARCC assessments and have advised other assessment efforts. Their work in developing instructional and assessment resources that encourage productive persistence in the face of intellectual challenge is tested and highly respected.

2. High quality items built for the standards

The more sophisticated next-generation item types need to be carefully developed, researched, and validated. The items should support the assessment of critical thinking and problem solving skills and provide deep instructional relevance for teachers and students.

District teams might consider exploring the following questions:
- What is the evidence that items are designed for central skills and capabilities such as critical thinking, and deeply aligned to the relevant standards?
- What information is available about each item, as to its level of difficulty? As to its reading level?
- Are the items rooted in real-world scenarios, and will they reinforce and support instruction?

Agile Assessment 5.0 items are built and aligned to the standards students must master. They are designed by reading level and by level of difficulty. They are carefully validated during development and are continuously studied for performance to intended design.

3. Real-time data analytics and reporting

Receiving data in real-time, in reports that are simple to understand and translate into action, enables educators to provide faster and more targeted responses and feedback to individuals and groups.

District teams might consider exploring the following questions:

- Are the available reports intuitive to interpret, and is it clear how they can inform instruction?
- Are reports available on a timeline and in a format that will enable rapid instructional adjustments?

The rich reporting capabilities of Agile Assessment 5.0, available in real time, equip educators to efficiently inform and empower instructional practice.

4. Ease of use

An assessment system should support flexible and convenient creation of assessments with minimal time needed for training and ramp up.

District teams might consider exploring the following questions:
- Are the assessment creation tools easy to use?
- Will the tools enable flexible and precise targeting of specific standards and instructional objectives, and levels of difficulty and reading?

Agile Assessment 5.0 includes powerful test creation tools that make it easy for users to efficiently and effectively create frequent class-level assessments as well as medium-stakes interim assessments. Assessments can target specific standards, topics, concepts, and skills, with customization of cognitive complexity and readability level.

5. Fits district technology infrastructure

A technology-enhanced assessment system should be selected with the district's technology infrastructure in mind.

District teams might consider exploring the following questions:
- Does the assessment system take advantage of the technology infrastructure currently in place? Does it rely on technology not currently in place?
- Will the assessment system fit well with future district technology initiatives?

Agile Assessment is designed to function effectively even in environments with low-bandwidth or older hardware, and at the same time can leverage the latest infrastructure including iPad, Chromebook, and laptop initiatives.

6. Part of a practical and comprehensive implementation plan

Assessment solutions are most effective when a specific training and implementation plan is designed to match the district's instructional plans and team capabilities.

District teams might consider exploring the following questions:
- What system implementations have been most successful in the district, and what types of support were beneficial?
- What is the evidence that the prospective assessment provider has resources and experience in offering implementation support tailored to districts?

Agile Mind is experienced in crafting robust implementation plans designed to successfully launch and support the use of Agile Assessment. Each individualized plan considers aspects such as professional development and training for teachers and administrators, roster loading and management, managing ongoing assessment support, and responding to custom implementation needs.

Agile Mind and the Charles A. Dana Center have collaborated on next-generation public resources such as the PARCC prototyping project, the CCSS toolbox, the TEKS toolbox, and other projects to further the advancement of student achievement in mathematics.

Checklist: Evaluating Agile Assessment & Other Assessment Systems

Expertly developed assessment items

☐ System offers research-validated items and test designs

☐ System provides robust coverage of subject areas: Middle School, Algebra I, Geometry, and Algebra II

☐ Item repository includes a variety of technology-enhanced, next-generation item types

☐ Items and test designs emphasize critical thinking and problem-solving skills

☐ Items and test designs focus on 21st century skills and college readiness

☐ Items are aligned to relevant state and national learning standards

☐ Items and test designs assess standards with appropriate level of rigor

☐ System delivers item-level cognitive complexity and readability ratings

☐ Developers conduct continuous research on item quality and validity

Data analytics and reporting

☐ System offers real-time analytics

☐ System provides at-a-glance dashboards as well as in-depth comparative analysis reporting

☐ Excel and PDF versions of reports are available

☐ District, school, class, and student level reporting delivers timely information to all stakeholders

☐ Standards-based reporting

☐ Reports make connections to curriculum, instructional strategies, and professional support resources

☐ Reports offer item level analysis

☐ Reports offer incorrect answer analysis

Implementation support and ease of use

☐ System is easy to use, especially during test creation

☐ Individualized implementation plan assures expectations and needs are met

☐ Ongoing professional development support for leaders and educators is planned

☐ System will operate effectively on district technology infrastructure

☐ System will integrate well with hardware initiatives (e.g. iPad or Chromebook adoptions)

☐ System offers 24/7 web-based accessibility and robust technical support

☐ Assessments can be shared within a school or across the district