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Article Series on Learning Impact

PARCC: Leveraging Open Standards to Support Next Generation Online Assessments

June 2015

Over the last several years there has been aggressive movement across K-12 in the U.S. toward digital assessment that is being spurred by state and national programs to better measure student learning. Building an online assessment system that meets the high-stakes, summative testing requirements across multiple states is a massive undertaking. Critical to the success of such an undertaking are open technology standards enabling interoperability of systems and platforms to support the wide variety of student accessibility needs and preferences in each state.

One of the groups organized to address this move to online assessments is the Partnership for Assessment of Readiness for College and Careers (PARCC), a consortium of states working together to develop a set of assessments that measure whether students are on track to be college and career ready. These computer-based K–12 assessments in mathematics and English language arts/literacy give teachers, schools, students and parents better information about whether students are on track in their learning to achieve success.

From the outset, PARCC has encouraged the use of open standards in support of assessment and question item development with a data model for standardizing the interchange file format for digital test items. To this end, PARCC adopted the **IMS Accessible Portable Item Protocol[®] (APIP[®]) standard** for two important goals: one, to allow digital Tests and Items to be ported across APIP compliant test item banks; and two, to provide a test delivery interface with all the information and resources required to make a Test and an Item accessible for students with a variety of special needs and presentation preferences.

PARCC is working closely with **IMS Global Learning Consortium** (IMS Global) members involved in the assessment community, to define a PARCC-specific conformance certification program to test the interoperability and accessibility of systems and content. Establishing this third party independent testing and certification that is coupled with the evolution of the APIP standard via IMS Global ensures that PARCC states will benefit from interoperability now and into the future.

This past spring, millions of students across 11 states completed the first year of the PARCC assessments online, thanks to newly adopted APIP online testing standards. The PARCC assessments are accessible to all students, including students with learning differences. For example, deaf students participate online by having the PARCC assessments signed to them through an embedded American Sign Language video. This is just one of many new APIP-enabled supports available online. A full list of the accessibility features and accommodations available on the PARCC assessments can be found on [the PARCC website](#). Also noteworthy, the PARCC online assessments are designed to “plug and play” with third party [Assistive Technology devices](#) used by many students.

In recent years, many high-stakes assessments have been retrofitted to work as online assessments, but PARCC was developed to be administered online from the outset. One of the main goals for PARCC was that assessments could be administered on almost any device used for learning. Today, the PARCC assessments are platform agnostic so schools can test using a range of devices: tablets, Chromebooks, as well as traditional PCs and Macintosh computers. It is important for students to be able to take assessments on devices that they are already using for learning because it ensures that they are familiar with how to operate them. To get ready for PARCC’s e-assessments, many schools purchased additional devices and increased Internet access to classrooms, all of which is paying dividends as the technology purchased to support testing is, first and foremost, being used for student learning. As a direct result of PARCC, many students, for the first time, now have access to the Internet in the classroom extending learning beyond the classroom walls.

PARCC is also the first large-scale assessment to use Technology-Enhanced Test Items (TEIs), moving beyond traditional, and limited, multiple choice questions. By leveraging TEIs, the PARCC tests are forcing the industry into the next generation of assessment where educators and test developers will, again for the first time, be able to step outside the confines of traditional multiple choice and constructed response questions and build sophisticated assessments that more accurately measure what students really know.

Any one of these achievements on its own would be a significant accomplishment for a new high-stakes assessment, but PARCC’s tests accomplishes all of them. To date over 15 million PARCC Online tests across 11 states (Arkansas, Colorado, Illinois, Maryland, Massachusetts, Mississippi, New Jersey, New Mexico, New York, Ohio, Rhode Island) plus the District of Columbia have been successfully administered – demonstrating that use of IMS open standards will support e-assessment scale and innovation.

IMS recently [announced](#) the formation of the Executive Board on Assessment (EBA). The EBA’s mission is to set industry direction for years to come and to accelerate the transition to e-assessment by building on the success of APIP and QTI® (Question & Test Interoperability®). PARCC is one of the charter members of the EBA and is participating to improve content portability, outcomes data interoperability, enable deeper integration with assistive technologies, and remove barriers to accelerate industry adoption of assessment standards.

“With the early success of PARCC using QTI and APIP for the exchange and delivery of assessments to millions of students this past

spring, IMS welcomes the participation and leadership of PARCC in the EBA to help set the business and technical strategy to accelerate the adoption of e-assessments to meet market needs,” said Rob Abel, Chief Executive Officer of IMS Global.

PARCC will continue to evolve to meet the needs of its member states and the adoption of open standards to support the interoperability and accessibility required for next generation, online assessments makes this possible.

About IMS Global Learning Consortium (IMS Global)

IMS Global is a nonprofit organization that advances technology that can affordably scale and improve educational participation and attainment. IMS members are leading suppliers, institutions and government organizations that are enabling the future of education by collaborating on interoperability and adoption initiatives. IMS sponsors Learning Impact: A global awards program and conference to recognize the impact of innovative technology on educational access, affordability, and quality. For more information visit www.imsglobal.org or contact info@imsglobal.org.



Citation to reference this article: IMS Global (2015). *PARCC: Leveraging Open Standards to Support Next Generation Online Assessments*. IMS Global Learning Consortium Series on Learning Impact. June 2015 from www.imsglobal.org/articles/SLI18-062315.pdf

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