

## Assessment Research Consortium (ARC) – Research Strategy

The following sections outline the challenges, early expert panel work, strategies, Consortium processes, intended participants, and benefits of the ARC initiatives.

To build a 21<sup>st</sup> century approach to measuring educational progress, ARC will focus on: assessments FOR and AS learning informed by contemporary research findings in educational psychology, neuroscience, the learning sciences and exemplary learning/teaching practices; and as appropriate, will take advantage of the most useful and widely available educational technologies.

### The 21<sup>st</sup> Century Assessment Challenge

The art and science of measuring learning progress is rapidly evolving, though education systems have often been slow to adopt new methods. The progression can be seen as movement from assessments OF learning, to assessments FOR learning, to assessments AS learning:

Assessments OF Learning	Assessments FOR Learning	Assessments AS Learning
Usually summative recall or simple demonstrations of basic skills measuring whether students have recently developed knowledge, skills and other competencies compared to established standards, benchmarks and learning goals  * Example: <i>US NAEP Test</i>	Formative and some portfolio summative methods of identifying: student learning progress in ongoing work and performance tasks; new learning needs as they arise; and opportunities to revise work and improve competencies  * Example: <i>Performance Task</i>	Mostly formative, meaningful learning tasks with embedded assessments that provide immediate feedback as part of the ongoing learning experience, with a progression of challenges for increasing mastery with a wide variety of feedback  *Example: <i>Online learning game</i>

Given a very long history of developing wide varieties of assessments OF learning, and their inherent limitations for student improvement, the challenge now for the ARC is to find and stimulate the creation of high-quality assessments FOR and AS learning.

These student learning-focused assessments may increasingly take advantage of technologies that allow for capturing rich information and useful interactive data about the learner’s growing competencies, and can provide ongoing, personalized “whole learner profiles” of maturing knowledge, skills, character qualities and meta-learning strategies.

In addition, research advances in educational psychology, neuroscience, and other learning sciences are influencing both teaching/learning practices and assessment approaches – part of ARC’s work will be to incorporate these findings and apply these deeper understandings to assessment practice.

### The ARC Expert Panel Agenda

ARC has launched an expert panel analysis of assessment tools and their supporting research focusing on assessments FOR and AS learning, all aligned to the common framework. This preliminary survey will identify existing high-quality assessments that are well supported by research, as well as gaps in both available assessment tools and the underlying research.

Criteria for selecting quality assessment tools will be based on three sets of factors, which include:

- **Technical Criteria**
  - Content Validity
  - Predictive Validity
  - Internal Reliability
  - Test-Retest Reliability
  - Fairness/Equity
- **Operational Criteria**
  - Costs
  - Ease of Implementation
  - Ease of Administering/Scoring
- **Potential Educational Impact Criteria**
  - Positively Affects Student Learning Trajectories and Mastery
  - Motivates Positive Changes in Teaching, Learning and School Culture
  - Stimulates and Supports Changes in Public Policy
  - Shifts Culture of Assessment (to more formative, relevant, authentic)
  - Uses Technology Effectively for Deeper Learning

The Consortium’s plan is to build the initial infrastructures for an online repository of high-quality assessment tools and research that fully support the common framework of 21<sup>st</sup> century learning goals, and to initiate an inclusive, phased process that will result in a solid 21<sup>st</sup> century common ground from which all players involved in educational assessments can operate.

### How Will ARC Work?

The Consortium’s work will be divided into three phases starting in early 2016, with the input of Consortium members determining the exact details and timelines for each phase:

- *Phase One* will focus on a *review* and identification of any additional work needed to augment the results of the initial expert panel’s analysis of high-quality assessments, with special attention on clearly articulating the gaps in both available assessments and the underlying research base.

*Phase One Success Measures:* a review by ARC Members of the initial expert panel’s work; and a final ARC summary of findings and recommendations; completed in Q4 of 2015.

- *Phase Two* will collectively create a short- and long-term *foundational research and development plan* for closing all the gaps identified in the earlier review, covering all four dimensions and elements of the

common framework – Knowledge, Skills, Character and Meta-learning. It will also *oversee the implementation* of the development plan, and collectively decide on *funding strategies and choice of institutions, organizations and consultants* to carry out the research and development work of the plan.

This strategic plan will identify all the foundational deliverables, resources and strategies needed to produce them, including such items as:

- A research agenda and an assessment tools development plan, including an RFP strategy for developing the key assessment tools, baseline research, and an online 21<sup>st</sup> century assessment repository infrastructure for building an expanded, integrated, 21<sup>st</sup> century approach to assessing progress in learning
- Identified needed contributions of expertise from assessment research scholars and distinguished educational practitioners
- A plan for a repository of best practice examples from schools, districts, states and countries that have already adopted and adapted 21<sup>st</sup> century assessment and learning practices
- A plan for collaborative creation of educational leadership and teacher professional development standards that will increase the capacity and competencies of educators to shift assessments and teaching/learning practices toward a 21<sup>st</sup> century approach
- A broad public relations plan for increasing support among all constituents for the needed shifts in assessment and learning practices
- A financial plan to support all the needed research and development including contributions from foundations, organizations, companies and individuals committed to transforming both the measurement systems and methods of learning that will ensure success for every student

*Phase Two Success Measures:* a comprehensive short- and long-term plan for building a common infrastructure and operating platform for 21<sup>st</sup> century assessment systems; successful vetting, funding of research, and monitoring the completion of all research and development implementation work overseen by ARC committees; and a portfolio of core research and a common 21<sup>st</sup> century assessment platform for use by Consortium members; all completed in 2016.

- *Phase Three* will provide an *analysis of the impacts and remaining gaps* to close, the *continuation of Consortium funding for research and development of the 21<sup>st</sup> century ARC platform*, as well as the *continuation of further outreach, training, updating and impact tracking of the ARC platform, tools, strategies and practices*.

*Phase Three Success Measures:* successful continuation of all ARC activities and tracking of impacts through 2017 and beyond.