

# CONNECT: Making Learning Personal

Reports from the Field by the League of Innovators

## Learning Analytics and ESSA: The Role of Data in Leading Change

Allison Crean Davis

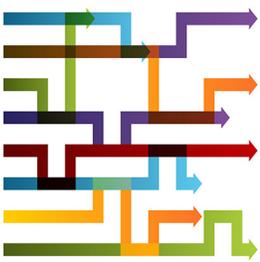
The **Center on Innovations in Learning (CIL)** developed its “**Conversations with Innovators**” event as a forum for its **League of Innovators** to engage in intimate discussions with author/experts on selected topics. In addition, this year, we added a session where we heard from practitioners implementing innovative approaches to personalized learning. The 2017 event was held at Temple University on June 14th and 15th. In each of three sessions, pairs of experts made brief 5–7 minute presentations on the designated topic, after which the floor was then opened for participants’ questions and discussion. The lively oral discussion was enhanced by participants’ postings on Padlet, an online virtual bulletin board. In three sequential issues of *Connect*, the conversation from each session continues, with author/experts responding to the overflow of questions and comments. In Session 1, Mark Williams and Karen Mahon discussed **Student Autonomy and ESSA: A Voice for Choice?** And in Session 2, Gregg Dionne and Jeuné B. Provost discussed **On the Ground: SEA Examples of Innovation in Action**.

In this issue of *Connect*, Allison Crean Davis responds to questions raised in Session 3, devoted to the topic **Learning Analytics and ESSA: The Role of Data in Leading Change**. Dr. Crean Davis is a Partner at Bellwether Education Partners, and as CIL’s Coordinator for Evaluation, she helps the Center understand the impact of its work in supporting educators to select, implement, and scale up innovative practices. She finds the value of evaluation is in its pragmatic application to improve and sustain processes and program outcomes. She is excited to explore how innovative practices in the education sector are, can, and perhaps should be evaluated. She has a diverse background as a consultant, researcher, evaluator, and practitioner in education and child/developmental psychology. She brings vast experience working with educators, policymakers, and funders at the national, state, district, and local school levels and across the continuum of pre-K to postsecondary institutions. Her work has provided her the privilege of working with educators practicing in inner-cities, on rural farmlands, on Indian reservations, and in the Caribbean Islands.

Below are two questions asked by attendees, followed by Dr. Crean Davis’s responses.

This field report is the thirteenth in a series produced by the Center on Innovations in Learning’s League of Innovators. The series describes, discusses, and analyzes policies and practices that enable personalization in education. Issues of the series will present either issue briefs or, like this one, field reports on lessons learned by practitioners recounting the successes and obstacles to success encountered in implementing personalized learning.

Neither the issue briefs nor the field reports attempt to present in-depth reviews of the research; for those resources readers are encouraged to access the Center on Innovations in Learning’s resource database. Topics should be of particular interest to state education agencies and district and school personnel.



## 1. Aren't personal competencies primarily about learning, and only secondarily the value of learning habits outside of the formal academic context?

**A.C.D.:** Personal competencies and learning indeed go hand-in-hand. Sam Redding (2014)<sup>1</sup> elaborates on this concept well when he writes “Success in learning requires four personal competencies that come into play for every student with every learning challenge.” Personal Competencies (Cognitive, Metacognitive, Motivational, and Social/Emotional) are often artificially bifurcated from cognition and learning, as represented by synonymous terms like “noncognitive” factors. But in reality, they contribute to learning and may be particularly important when we consider how instruction can be personalized to students to best align with their prior knowledge, approach to a variety of learning tasks, interests, and response to challenge. Multiple studies suggest we may fail to boost cognitive skills if we ignore the interdependency of these with personal competencies (Garcia, 2014).<sup>2</sup>

Similarly, it would be wrong to consider formal academic learning and other kinds of learning and attainment as separate entities. In fact, much of what we know about personal competencies is informed by their importance to lifelong success in the labor market (e.g., schooling, employment, wages) and in behavioral outcomes (e.g., teenage pregnancy, smoking, drug use, participation in illegal activities; see Heckman, Stixrud, & Urzua, 2006).<sup>3</sup>

In short, our personal competencies relate to learning, and learning is a continuous thread throughout our life's experiences. We are influenced by our prior experiences, our attitudes, our drives, our emotions. In turn, our successes and failures circle back to influence how we approach future tasks and challenges. Personal competencies and learning are inextricable. As educators, we think deeply about how we can be aware of these characteristics to shape optimal learning experiences for our students that will manifest inside and outside the classroom and throughout our student's lifetimes.



Allison Crean Davis says, when making evaluations in education, it is important to maintain clarity in concept (What are we measuring?), clarity in purpose (Why are we measuring?), and clarity in process (How are we measuring the obscure?).

## 2. What can be done at the SEA level to make sure student analytics are being used well?

**A.C.D.:** This is a good yet challenging question, as there is variation among SEAs about the kind of data they possess, the manner in which they capture data, the

<sup>1</sup>Redding, S. (2014). *The 'Something Other': Personal competencies for learning and life*. Philadelphia, PA: Center on Innovations in Learning, Temple University.

<sup>2</sup>Garcia, E. (2014). The need to address noncognitive skills in the education policy agenda. *Briefing Paper No. 386*. Washington, DC: Economic Policy Institute.

<sup>3</sup>Heckman, Stixrud, & Urzua. (2006). The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior. *Journal of Labor Economics*, 24(3), 411–482.



capacity of staff to analyze and represent data to guide decision-making. That said, good thinking is developing about how educators should approach data analytics from a policy and practice point of view. For example:

**Policy:** **Data Quality Campaign** has put forward four policy requirements to make data work for students (see <https://dataqualitycampaign.org/why-education-data/make-data-work-students/>), summarized below:

- **Measure What Matters.** Be clear about what students must achieve, have the data to ensure that all students are on track to succeed, and share results over time.
- **Make Data Use Possible.** Provide teachers and leaders the flexibility, training, resources, tools, technology, and support they need to answer their questions and take action.
  - **Be Transparent & Earn Trust.** Ensure that every community is provided with quality, relevant, and understandable data that communicates how its schools and students are doing and reinforces why data is valuable.
  - **Guarantee Access & Protect Privacy.** Provide teachers and parents timely information on their students and make sure it is kept safe.

**Practice:** Hamer (2014)<sup>4</sup> suggests that education may borrow data tools and analytic practices from other industries, but they must be practical for and applicable to the sector's needs and add value to the educational process.

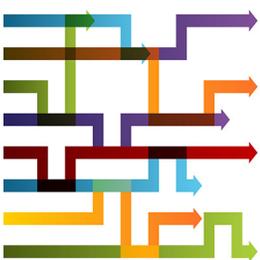
For example, tools must have the capacity to pinpoint needs at different levels of the system, must deliver information in a timely way, should reflect trends over time so that learning and growth can be gauged, must help teachers reflect on their practice, should be available on-demand to those interacting closely with students, and should elevate conversations and strategic decision making beyond what was previously possible.

Harvard University's Strategic Data Project has developed the Strategic



Dr. Crean Davis's co-presenter was Ryan Baker, associate professor in the University of Pennsylvania Graduate School of Education, and Director of the Penn Center for Learning Analytics.

<sup>4</sup>Hamer, I. (2014). 11 Ways to Make Data Analytics Work for K-12. *Education Week*, 34(08), 22–23. Retrieved from <http://www.edweek.org/ew/articles/2014/10/15/08hamer.h34.html?print=1>



way data are stored and used, constraints about how and by whom data may be accessed and shared, and the Use of Data Rubric,<sup>5</sup> based on a framework illustrating what effective use of data within an education system can look like. When used as a self-assessment, the tool may spur reflection, discussion, and decision-making around organizational data practices for informal and more formal evaluation purposes.

These guidelines and frameworks provide insight for SEAs as they consider how to best leverage data throughout their educational system. What is less clear from these sources, and what we deem critical, is what arguably needs to be Step One in the data analytic process. SEAs need to *pinpoint the questions* that need to be answered that data analytics can support. The questions provide the “why” behind the data, should guide how SEAs prioritize data sources and analyses, and should strongly influence the design of tools, people, and processes related to data analytics.

<sup>5</sup>Center for Education Policy Research (2014). Strategic Use of Data Rubric self-assessment guide. Cambridge, MA: Author. Retrieved from <https://sdp.cepr.harvard.edu/files/cepr-sdp/files/sdp-rubric-self-assessment.pdf>



The **League of Innovators**, a network of state education agency and Regional Comprehensive Center personnel with an interest in learning innovations, is organized and administered by the **Center on Innovations in Learning**.

The **Center on Innovations in Learning** (CIL) is a national content center established to work with regional comprehensive centers and state education agencies (SEA) to build SEAs’ capacity to stimulate, select, implement, and scale up innovations in learning. In partnership with the Academic Development Institute (ADI), Lincoln, Illinois, the Center on Innovations in Learning is located at Temple University in Philadelphia, Pennsylvania. The Center is funded by the U.S. Department of Education, Office of Elementary and Secondary Education (OESE), under the comprehensive centers program, Award # S283B120052-12A. The opinions expressed herein do not necessarily reflect the position of the supporting agencies, and no official endorsement should be inferred.

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