Deepening Your Understanding of Deeper Learning
Toolkit Introduction

Deeper learning focuses on a set of outcomes all students need to succeed in college, a career, and a changing, global economy. Although these outcomes are represented in different ways, they most often include preparing students to

- know and master core academic content;
- think critically and solve complex problems;
- work collaboratively;
- communicate effectively;
- be self-directed and able to incorporate feedback; and
- develop the academic mindsets necessary for learning.

Deeper Learning: An Equity Imperative

Making deeper learning opportunities more equitable across all student groups is an imperative from both a moral and an economic perspective.

The skills and knowledge necessary for success in the global economy continue to change. Yet many of today's schools are not designed to prepare students for the changing demands of postsecondary learning and the workforce. While some people argue that some schools need to focus on grade-level content and leave deeper learning for those schools that have resources to teach at that level, this argument will only weaken the nation's ability to compete economically with its

international counterparts. All students in the U.S. benefit when approaches that foster deeper learning are infused in a continuum of learning opportunities, regardless of starting point.

Given that culturally diverse populations now account for about half of all births in the United States (by 2050, the United States is expected to be a majority-minority country, where more than half the population will be people who are largely of color and second-language English speakers, compared with 35 percent in 2010), providing equitable opportunities for all students to develop deeper learning is even more important. The nation's prosperity depends more than ever on the success of individuals from diverse groups and backgrounds. The economy can thrive only if the entire population, not less than half, learn deeply and can apply learning to new situations. As such, traditionally underserved students should be supported to take rigorous advanced course work such as calculus and physics; Advanced Placement classes; early college, concurrent- or dual-enrollment college courses; career and technical education; and career academies, among others. In addition, opportunities for work-based programs and apprenticeships need to be expanded so more students can gain employability skills for jobs and careers.

Trends in the economy show that the fastest-growing jobs require problem-solving and critical-thinking skills, while those that require only routine manual skills are in decline. Ensuring that deeper learning is part of the curriculum and instruction in every school is one way to improve success for more students.

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Even as the high school graduation rate continues to improve in the U.S., there are still student populations for whom the education gap is widening. Consider just a few of the implications for students not graduating ready for college, careers, and other postsecondary opportunities.

- The Alliance analyzed a Georgetown University report that showed that since the Great Recession, 99 percent of jobs have gone to individuals with at least some postsecondary education (http://all4ed.org/articles/haves-and-have-nots-ninety-nine-percent-of-jobs-created-since-the-great-recession-have-gone-to-workers-with-at-least-some-college-says-new-georgetown-university-report/). The report also showed that across all industries, jobs for bachelor's degree holders have more than doubled since 1989, while jobs for workers with a high school diploma or less have declined 13 percent—a loss of 7.3 million jobs for those individuals.

- An Alliance review of the National Student Clearinghouse Research Center's annual report (http://all4ed.org/articles/whos-going-to-college-annual-report-compares-college-transition-rates-for-high-school-graduates/) revealed that only 44 to 58 percent of students from low-income households were enrolled in college in their first semester. Graduates from low-income urban high schools that served at least 40 percent students of color had the lowest college completion rate, at 22 percent.

- An Alliance project, the Graduation Effect, researched the monetary value saved by increasing the nation's high school graduation rate to 90 percent for just one class and found that the increase in annual earnings would be $7.2 billion (http://impact.all4ed.org/).

Preparing students for a changing economy that demands higher-level skills and knowledge should be an educational and economic priority. At the core of this is ensuring that *all* students—regardless of their home zip code or socioeconomic background—have equitable access to college- and career-ready outcomes.

What Does Deeper Learning Look Like?

There are a variety of instructional approaches that can be used to foster deeper learning outcomes in ways that benefit all students, including students from low-income families and students of color, who have been

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traditionally underserved. In all cases, approaches focus on engaging students in learning in which they build competencies associated with deeper learning. Examples of instructional approaches that expand deeper learning opportunities to all students follow.

- **Inquiry-based learning.** An inquiry-based learning approach seeks knowledge through the act of asking questions. Students are the engines of their own learning—with an emphasis on student agency—and they generate useful and applicable knowledge. Inquiry-based learning approaches do not always focus on the right answer; more important are the resolution to the questions, issues raised, and development of a process of inquiry and inquiry-heightened habits of mind. In an inquiry-based learning approach, the process is more than simply asking questions, no matter how sharp those questions are. A teacher using this approach works with students to establish a process at the very start so there is a framework for question asking and knowledge development. The teacher is the leader of the learning and the facilitator of the process, and modeling this process is critical to making it work. From the teacher, students can see inquiry in action and learn its steps until they are able to manage it themselves. An inquiry-based classroom creates both knowledge and independent learners.

- **Personalized learning.** This student-centered approach is designed to help all students develop the knowledge, skills, and abilities that will prepare them for college, a career, and life. Personalized learning approaches focus on students thinking critically, using knowledge and information to solve complex

problems, working collaboratively, communicating effectively, learning how to learn, and developing academic mindsets. Within a personalized learning model, teachers, school staff, and adults in the communities are given the opportunity to develop relationships with students, provide each student with targeted instruction and support, create flexible learning environments inside and outside the classroom, and connect each student with the local community and the world through work-based learning (e.g., internships, apprenticeships, hands-on projects, and global study). Personalized learning focuses not just on instruction but on teaching students how to apply what they are learning in a meaningful way.

- **Blended learning.** This approach focuses on integration of in-person learning and technology so that it enables the use of real-time data, student-centered personalization, and mastery-based progression. With the use of technology and data, blended learning allows teachers to deliver instruction efficiently, get feedback, and use student data to help struggling students, challenge gifted students, and inspire and empower students to do their best.

- **Work-based learning**. This approach emphasizes the application of classroom content and knowledge in real-world settings through a clear connection between school and work. It is supported by strong relationships between schools and local employers. While the school is responsible for the delivery of rigorous academic instruction and content preparation, students attend offsite job placements for workplace learning. Through a work-based learning approach, students are given the opportunity to participate in authentic work experiences where they are able to develop habits and skills such as critical thinking, problem solving, and collaboration.

- **Project-based learning**. In this approach, students develop knowledge and skills while engaged in investigating a meaningful problem or answering a complex question over time. Typically, projects feature a real-world context, tasks and tools, and quality standards while emphasizing students' personal interests. Students make their project work public by explaining, displaying, and/or presenting it to classmates and others.

- **Connected learning**. This approach seeks to make learning relevant to all populations in everyday life and work, taking into consideration the opportunities and realities of the digital age. With relevance at its core, connected learning is a framework that connects learning across multiple settings in a young person's life. Connected learning recognizes that learning never stops in today's society, and a learner's interest and expertise can be developed not just in school but also at home and in the community. Connected learning uses digital media to engage students' interests and results in deeper learning outcomes, such as communication, collaboration, and critical thinking. The connected learning model posits that focusing educational attention on the links between different spheres of learning—peer culture, interests, and academic subjects—better supports interest-driven and meaningful learning in ways that take advantage of the potential of digital networks and online resources to provide access to an engaging learning experience.

How Can Deeper Learning Outcomes Be Assessed When Using These Instructional Approaches?

In all cases, instructional approaches that foster deeper learning call for assessments that measure a broad range of knowledge and skills, to determine whether students are attaining deeper learning. The instructional approaches also allow all students—including students from diverse backgrounds who possess a broad array of skills and knowledge—with the opportunity to demonstrate their learning through various modalities and methods that appeal to diverse styles and interests. Examples of strategies used to assess deeper learning follow.

- **Performance assessments** ask students to apply their knowledge and skills in creating some form of product, presentation, or demonstration.

- **Project-based learning assessments** are cumulative in nature. These tasks offer students opportunities to apply a set of knowledge and skills to a topic, problem, or issue over time.

- **Competency-based assessments** are designed to measure specific skills that students have learned against a set of standards, often at a personalized pace. A student advances based on mastery of course content, not on the number of days spent in the classroom. These assessments can be administered to measure in-course progress, as well as at the end of a course or unit.

- **Portfolio assessment** is the systematic collection of students' work samples, records of observation, test

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results, and other artifacts gathered over a period of time for the purpose of evaluating student growth and achievement.

[Learn more about deeper learning and assessments in the toolkits found in the topical area Assessing Deeper Learning.]

Deeper Learning Opportunities in ESSA

Although the Every Student Succeeds Act (ESSA) of 2015 does not specifically mention deeper learning, it offers several opportunities for states and districts to advance deeper learning and ensure that all students graduate from high school with the ability to think critically, solve complex problems, collaborate with peers, communicate effectively, and be self-directed. Some of these opportunities follow.

- **Standards:** Under ESSA, states are required to adopt challenging academic content standards and demonstrate that those standards align with entrance requirements for credit-bearing course work in the state's public system of higher education and with relevant state career and technical education (CTE) standards.

- **Assessments:** Assessments that measure a broad range of knowledge and skills, rather than the narrow range measured by most current tests, are vital to determine whether students are attaining deeper learning competencies. Several ESSA provisions support this, including that assessments must include measures that assess higher-order thinking skills and

understanding; states may administer assessments through either a single summative assessment or multiple interim assessments provided during an academic year; and federal funding for state assessments places an emphasis on balanced assessment systems that can measure the full range of state standards and competency-based assessments that allow students to advance based on demonstrated mastery of a skill.

- **Direct student services to support access to rigorous academics:** Under ESSA, a state may use up to 3 percent of its Title I funds for direct student services that may promote deeper learning outcomes (e.g., student enrollment and participation in academic courses not otherwise available at a school; activities that assist students in completing credit-bearing postsecondary-level instruction; and components of personalized learning).

- **Teacher capacity to support deeper learning:** Under ESSA, states may use federal professional development funding to build teacher capacity to use data and assessments to improve classroom practices; develop and implement instructional practices that support dual- or concurrent-enrollment programs and the integration of rigorous academics, CTE, and work-based learning; and create common planning time to allow teachers to collaborate on efforts to prepare students for postsecondary education and the workplace.

- **Successful transitions:** A school operating a school-wide program under ESSA's Title I must describe how it will address the needs of all students in the school. The school may address the academic needs of these students by preparing students for and building their awareness of opportunities for postsecondary education and the workforce and broadening access to course work that enables students to earn postsecondary credit while in high school.

Resources

A Time for Deeper Learning: Preparing Students for a Changing World (May 2011)

http://all4ed.org/reports-factsheets/a-time-for-deeper-learning-preparing-students-for-a-changing-world/

The increasingly complex world demands much of its students, and in almost every aspect of their lives, young people are being asked to learn more, process more, and produce more. Now more than ever, the nation's

education system is being challenged by a technology-driven global economy that requires a skilled and deeply literate workforce. This report examines deeper learning, explains its necessity, and analyzes the growing body of global evidence supporting its widescale implementation. The video *A Time for Deeper Learning: Preparing Students for a Changing World* (http://all4ed.org/videos/a-time-for-deeper-learning-preparing-students-for-a-changing-world-2/) introduces this report and provides a brief overview of deeper learning.

Deeper Learning 101 (Blog post) (October 8, 2013)

http://all4ed.org/deeper-learning-101-with-robert-rothman/

This blog post features an interview with Robert Rothman, who at the time was a senior fellow at the Alliance. He defines deeper learning as the set of competencies all students need to succeed in an increasingly complex world. Rothman makes the argument that all students need to develop these competencies, for moral reasons (all students deserve a high-quality education) and for economic reasons (jobs that require only basic skills are declining, while those requiring more complex skills are growing). He touches on several policy issues that face state and district leaders when transitioning to a deeper-level approach, such as moving to assessments that measure deeper learning outcomes, expanding the availability of technology and broadband, making the use of time more flexible, and finding ways to allow students to take ownership of their own learning.

Connected Learning: Harnessing the Information Age to Make Learning More Powerful (March 2014)

http://all4ed.org/wp-content/uploads/2014/03/ConnectedLearning.pdf

Connected learning is an educational approach that seeks to make learning relevant to all populations in everyday life and work, taking into consideration the opportunities and realities of the digital age. With relevance at its core, connected learning is a framework that connects learning across multiple settings in a young person's life. The connected learning model posits that focusing educational attention on links between different spheres of learning—peer culture, interests, and academic subjects—better supports interest-driven and meaningful learning in ways that take advantage of the potential of digital networks and online resources to provide access to an engaging learning experience. This report details

how connected learning is implemented and provides several scenarios of it in action.

Leading Blended and Digital Learning: Creating a Culture Starts with Principals (Webinar) (June 21, 2016)

http://all4ed.org/webinar-event/jun-21-2016/

This webinar, presented by the Friday Institute for Educational Innovation and Future Ready Schools®, addresses key strategies implemented by principals who seek to create a school culture of blended learning through the use of digital tools. Stacy Wang, director of the Oakland Unified School District (CA), and Lynn Ochs, representing the Ohio Blended Learning Network, share their views about what is needed to create a strong culture of blended learning. The webinar discusses best practices, teacher support strategies, the need for risk taking, and how to create a collaborative culture that promotes blended learning for staff and students.

Personalized Learning: Meeting the Needs of Students with Disabilities and English Learners (Webinar) (May 4, 2016)

http://all4ed.org/webinar-event/may-4-2016/

Cohosted by the Alliance, the National Center for Learning Disabilities (NCLD), and the National Council of La Raza, this webinar covers the findings of the NCLD's report *Personalized Learning: Meeting the Needs of Students with Disabilities*. The report engages leading education and disability advisors—including educators, school administrators, researchers, and advocates—to explore personalized learning best practices of students with disabilities and English language learners. This webinar discusses the relevancy behind the report and additional supports the NCLD provides parents and districts to ensure that personalized learning is working for all students.

Personalized Learning: Henry County, Georgia (Video) (December 16, 2014)

http://all4ed.org/videos/personalized-learning-in-henry-county-georgia/

This video discusses efforts to personalize instruction for all students in Henry County, Georgia, and the supports and strategies being used by district leadership seeking to enhance technology planning. The video discusses how personalized learning allows teachers to differentiate between students, which has led to an increase in student engagement and activism within the school.

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Blended Learning: Recommendations and Resources (Webinar) (July 28, 2016)

http://all4ed.org/webinar-event/jul-28-2016/

Hosted by the Alliance's Future Ready Schools®, this webinar details recommendations and resources from The Learning Accelerator (TLA) that help schools implement blended learning. TLA works to understand challenges educators face in implementing blended learning and personalized learning. This webinar highlights tools available to overcome critical issues and examines data to determine whether blended learning is effective.

Redesigning Learning Spaces: Creating Brain-Friendly, Blended Learning Environments (Webinar) (September 17, 2014)

http://all4ed.org/webinar-event/sep-17-2014/

Hosted by the Alliance, this webinar explores how classroom spaces can be transformed into blended learning and digital learning environments. It provides examples for how to redesign learning spaces and considers research that demonstrates how learning environments and colors can impact student learning and student advancement. The webinar makes recommendations for what teachers can do to ensure that all physical and environmental barriers of student learning are eliminated.

Accelerating Blending Learning (Webinar) (June 25, 2014)

http://all4ed.org/webinar-event/jun-25-2014/

This webinar, hosted by the Alliance, explains blended learning, its opportunities for students, and its focus on competency-based progression that empowers students to learn at their own pace. During the webinar, Scott Ellis, chief executive of The Learning Accelerator (TLA), shares how TLA influences school districts to adopt and implement blended learning.

Parallels Between Gymnastics and Personalized Learning (Rio Olympic Video) (August 11, 2016)

https://www.youtube.com/watch?v=DHN5Nh0CykQ

This video parallels the Rio Olympics to competition in schools. The Alliance calls for a personalized learning approach in school systems that empowers students and allows them to build the skills they need to succeed. The video explains personalized learning and how it can

impact instruction, student engagement, practice, and support.

ESSA Primer: Personalized Learning (June 9, 2016)

http://all4ed.org/reports-factsheets/every-student-succeeds-act-primer-personalized-learning/

This brief explains how ESSA supports states and districts in implementing personalized learning. It describes the different components of personalized learning and how ESSA provides states and school districts with flexibility so that teacher capacity, funding, assessments, and standards align with a personalized learning approach.

A "Softer" Side to Deeper Learning: Building Students' Social-Emotional Skills

http://deeperlearning4all.org/deeper-learning/a-softer-side-to-deeper-learning-building-students-social-emotional-skills

Social and emotional learning, or how students manage emotions and deal with traumas to persist in their academic work, provides a foundation for students to experience deeper learning in the classroom. Social and emotional learning skills (e.g., the ability to form and manage relationships, manage complex academic tasks, and be responsible for decisionmaking and behaviors) go hand in hand with the development of deeper learning competencies. This article describes how practices and policies are changing to incorporate social and emotional learning skills in classrooms.

Why: Understanding the Need

http://deeperlearning4all.org/understanding-the-need

While economic data suggests that individuals will benefit from developing deeper learning abilities, the nation as a whole will only succeed if large numbers of individuals—particularly those from traditionally underserved groups—learn deeply. Making deeper learning opportunities more equitable is imperative from both a moral and an economic perspective. This page offers additional resources on the topic.

Using Project-Based Learning to Prepare Students for Real World (Blog post) (September 2, 2016)

http://all4ed.org/deeper-learning-digest-using-project-based-learning-to-prepare-students-for-real-world/

This blog post describes how inequities and the new economy are impacting students, schools, and instructional

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design, with the goal of highlighting better ways to prepare students for a project-based learning world that strengthens deeper learning competencies.

Ensuring Deeper Learning Is for All Students (Blog post) (June 17, 2016)

http://all4ed.org/deeper-learning-digest-ensuring-deeper-learning-is-for-all-students/

This blog post shares examples of deeper learning issues and pathways for students who traditionally have not had adequate access to learning activities that build deeper learning competencies. The post highlights project-based learning as one approach to deeper learning. This approach is less evident in schools serving students from low-income families and large numbers of English language learners, yet with targeted support and scaffolding of instruction, these subgroups can meet deeper learning expectations.

ESSA Primer: **Deeper Learning** (April 2016)

http://all4ed.org/reports-factsheets/every-student-succeeds-act-primer-deeper-learning/

Under ESSA, states are required to adopt challenging academic content standards and demonstrate that those standards align with entrance requirements for credit-bearing course work in the state's public system of higher education and with relevant state career and technical education standards. By adopting challenging academic standards that ask students to think critically and analyze complex problems, states can foster deeper learning outcomes for students. This primer summarizes deeper learning opportunities in ESSA.

ESSA Primer: **Personalized Learning** (April 2016)

http://all4ed.org/wp-content/uploads/2016/06/FINAL-ESSA_FactSheet_Personalized-Learning.pdf

ESSA supports states and districts in implementing personalized learning. This brief summarizes ESSA opportunities as they relate to personalized learning and direct student services, funding for digital learning, standards, assessments, and transitions.

Promoting Work-Based Learning: **Efforts in Connecticut and Kentucky** (October 2012)

http://all4ed.org/wp-content/uploads/2013/06/WorkBasedLearningCT-KY.pdf

In summer 2012, the National Association of State Directors of Career Technical Education Consortium and the Alliance conducted a survey of state directors of career and technical education (CTE) to gauge state efforts to better connect CTE with a larger college- and career-readiness agenda. Survey questions spanned a range of issues, including whether each state had developed a definition of career readiness, the number of career academies in each state, and what states are doing to formally identify and remove barriers to work-based learning opportunities in policy and practice. This brief includes a short description of efforts from two states—Connecticut and Kentucky—to define work-based learning opportunities for youth participants, educators, and employers, and to create policies that provide greater access to these opportunities.

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Tools in this Toolkit

Following is a list of tools contained in this toolkit. Each tool listing contains a title, the intended audience (SL = state leader; DL = district leader; and SDL = state and district leaders), and the purpose of the tool.

- **Blended Learning Policies**, **Procedures**, and **Practices** (SDL)

  The purpose of this tool is to show how a state and district developed policies, procedures, and practices to initiate blended learning approaches in schools.

- **Connected Learning Policies**, **Procedures**, and **Practices** (SDL)

  The purpose of this tool is to show how a state and district developed policies, procedures, and practices to initiate connected learning approaches in schools.

- **Engaging Students in Deeper Learning** (SDL)

  The purpose of this tool is to provide an example of an activity that engages students in deeper learning.

- **Inquiry-Based Learning Opportunities** (SDL)

  The purpose of this tool is to engage leaders in reflecting on the types of policies, procedures, and practices that might need to be reviewed when offering inquiry-based learning opportunities to students.

- **Inquiry-Based Learning Policies**, **Procedures, and Practices** (SDL)

  The purpose of this tool is to show how a state, district, or school might initiate inquiry-based learning approaches in schools.

- **Personalized Learning Policies**, **Procedures, and Practices** (SDL)

  The purpose of this tool is to show how a state, district, or school might initiate personalized learning approaches in schools.

- **Project-Based Learning Policies**, **Procedures, and Practices** (SDL)

  The purpose of this tool is to show how a state and district developed policies, procedures, and practices to initiate project-based learning approaches in schools.

- **Reflecting on Deeper Learning Approaches and Outcomes** (SDL)

  The purpose of this tool is to provide an opportunity to think about how deeper learning outcomes are addressed through various instructional approaches.

- **Work-Based Instruction Policies**, **Procedures, and Practices** (SDL)

  The purpose of this tool is to show how a state and district developed policies, procedures, and practices to initiate work-based learning instructional approaches in schools.

- **Work-Based Learning Challenges** (SDL)

  The purpose of this tool is to engage leaders in reflecting on the types of policies, procedures, and practices that need to be reviewed when offering work-based learning opportunities to students.