This study guide is a companion to the book *Deeper Learning: Beyond 21st Century Skills*, the ninth book in the *Leading Edge* series, edited by James A. Bellanca. *Deeper Learning* advocates strategies that promote higher-order thinking, reasoning, and problem solving to better educate students and better prepare them for college and careers.

This guide is arranged by chapter, enabling readers to either work their way through the entire book or to focus on the specific topics addressed in a particular chapter. It can be used by individuals, small groups, or an entire team to identify key points, raise questions for consideration, assess conditions in a particular school or district, and suggest steps that might be taken to promote a healthy school culture.

We thank you for your interest in this book, and we hope this guide is a useful tool in your efforts to create a healthy culture in your school or district.
Chapter 1

Deeper Learning for Students Requires Deeper Learning for Educators

By Richard DuFour and Rebecca DuFour

1. What must contemporary American educators endeavor to achieve that has never been accomplished in the history of the United States?

2. Describe the three big ideas that drive the professional learning community (PLC) process.

3. Emulating the world’s best school systems, what must schools in the United States appreciate as three critical areas in which they must help students in order for them to experience deeper learning?

4. Why do you think it is not unusual for there to be a great difference between an intended curriculum and the implemented curriculum?

5. On pages 33–34, the authors list what Linda Darling-Hammond identifies as keys to teaching for deeper learning. Which of these keys does your school do best? Which ones could use the most improvement? In your experience, how have you seen deeper learning gained through employing one of these keys?
6. What qualities must an intervention aimed at students who are struggling and who need further support have in a PLC school?
1. Why does deeper learning in education entail an adaptive shift rather than a technical shift?

2. In your own words, what is a disposition?

3. Review the sixteen dispositions of deeper learners that foster continuous learning. Which of these dispositions manifest strongest in you, and which one do you think you need the most development in? What is a disposition that you would add to this list to encourage continuous learning?

4. Name the seven strategies the authors say that school staff can use to help students adopt the sixteen dispositions.

5. Why must students develop the sixteen dispositions or learning habits to become deeper learners? Why is being skillful not enough to gain deeper thinking?
Chapter 3

Paradigm Shift: Educating Creative and Entrepreneurial Students

By Yong Zhao

1. Why might the sense of competition and the standardized testing parameters that the Global Education Reform Movement (GERM) promotes take people further away from the better tomorrow they seek?

2. What are intrapreneurs? Briefly describe what the author presents as the “expanded sense” of the word entrepreneur and how it differs from traditional ideas of entrepreneurship.

3. What does your school do to encourage students to express their creativity in different grades?

4. As the inverse relationship between entrepreneurship and test scores intimates, why might education systems that result in good test scores have low entrepreneurship aptitudes?

5. What is the aim of John Dewey’s student-centered paradigm? How does this paradigm take globalization into consideration?

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6. On page 103, Zhao draws a distinction between *better schools* and *better education*.

What would you say are the differences between these two ideas?
Chapter 4

Powering Up Learning With PBL Plus Technology

By Suzie Boss

1. How does project-based learning plus technology (PBLT) help to prime students for college and career work?

2. How have you seen digital tools that introduce students to professionals’ techniques or that open students up to new communities, such as blogs and social media, successfully integrated into classrooms? How have these tools supported instruction or conversations in the classrooms?

3. What four trends are worth keeping an eye on because of their capacity for deeper learning in PBLT? What is meant by blended learning?

4. What are maker spaces? Why are they becoming more popular in school settings? Why might they be considered beneficial?

5. Briefly describe the four repercussions for practicing a broader acceptance of PBLT.
Chapter 5

Developing Teachers for Deeper Learning

By Rob Riordan, Stacey Caillier, and Ben Daley

1. Consider the four trigger questions outlined on pages 141–142. How would asking questions such as these, which monitor the effectiveness and the personalization of lessons, affect your current practices for designing projects and monitoring student work?

2. What can you learn from the hiring techniques practiced at the High Tech High (HTH) schools? How can this inform your school’s teacher development practices?

3. What four norms do HTH protocols start from when a teacher shares a problem or a project design with his or her professional community of colleagues?

4. For what two reasons do all teachers in the HTH credentialing program receive peer coaching?

5. How does your district encourage adult learning for teachers? What would you change in your school culture in order to give teachers more opportunities to learn from each other and engage with each other?
Chapter 6

The Worst of Times, The Best of Times

By Tony Wagner

1. Why is it that employers care more about prospective employees’ skills than their college majors?

2. What does author Tony Wagner consider the most noteworthy educational reform of the last five years in developing shared academic standards for K–12 public schools?

3. In reading about the author’s experiences studying Finland’s high-performing education system, what intrigues you about their education methods? What can you take away from this system’s work, and what do you think is worth discussing or potentially implementing in the United States?

4. How have you seen student motivation and teacher morale affected by text-prep-based curricula? What does your school currently do to bring attention to student motivation, and what do you think could be done to spur student enthusiasm?

5. Why does the author say that it is important for educators to team up with business and community leaders to set up an accountability system?
1. Name the seven academic mindsets that can positively influence student performance and the three categories by which you can classify these mindsets. Based on the single-sentence quotations illustrating each mindset that are provided in this chapter, briefly describe these mindsets.

2. In your own words, define project-based learning approaches, community partnerships, and advisory programs.

3. What two approaches to change are featured in institutions? Which one is more common? Which one is rarer, why is it more difficult, and why are education systems now confronted with this approach to change?

4. How does your school integrate year-end reviews and activities that assess upcoming plans, identify lessons learned, and recognize accomplishments for everyone involved with the school, including parents and stakeholders? How have these reviews impacted school culture and people’s motivation moving into the next year?
5. What is *infiltration*? How did the Napa District undertake work in infiltration? How do you think you could beneficially implement infiltration at your school?
1. What does author Charles Fadel name as the necessary qualities of curriculum? What feature do you think curriculum should have that you would add to these provided qualities?

2. Why is and genius, and why is or tyrannical? Why is balance needed between and and or in a curriculum?

3. What is meant by amplified humans?

4. What two main barriers prevent people from taking deep dives into curriculum?

5. Why is metacognition essential for setting up lasting learning habits and for developing expertise?

6. Briefly describe the four main factors that contribute to inertia in curriculum design.
Chapter 9

Assessment Systems for Deeper Learning

By Linda Darling-Hammond and David T. Conley

1. How can assessment be educational?

2. Name the five major features of a high-quality, coordinated system of assessment.

3. Why are consortia assessments not able to directly assess all significant Common Core standards?

4. What are the components of a graduation portfolio? How does the level of competency or understanding that students can demonstrate through portfolios differ from what they can exhibit in multiple-choice and short-answer exams?

5. What does it mean for accountability to be reciprocal? Why must accountability be reciprocal in education practices?
Chapter 10

Breakthrough Learning

By Michael Fullan

1. In your own words, define breakthrough learning. What four major components of breakthrough learning are joining together?

2. Describe push factors. What are the examples of push factors that author Michael Fullan provides? Describe pull factors, and name what three pull factors he says are emerging.

3. According to the author, what four criteria should all solutions meet?

4. How does your school encourage school staff to try new things in order to stimulate innovation? What do you think could be altered in your school environment to encourage more innovative thinking?

5. Of the list of 6Cs compiled by the author on page 279, which of these deep learning goals would you establish as your crucial 4Cs? Why do you find these learning goals to be the most important?
Chapter 11

All or Nothing: A Deeper Learning Experience

By Steven Zipkes

1. What does author Steven Zipkes mean when he says that the Manor New Technology High School (MNTHS) team changed the focus of their mindset and their development from what to how?

2. What four elements did MNTHS teaching staff concentrate on to cultivate deeper learning?

3. On page 296, Zipkes lists what most educators name as the three Rs and how Manor New Technology High School reorders those three Rs. In what order would you list these three Rs, with the most critical listed first? If you replaced any of these three Rs with another R, what new R would you incorporate?

4. At MNTHS, what two characteristics suggest that a teacher would correspond well with the school’s culture? How would a teacher with these qualities be suited to your school’s culture?
5. How do MNTHS’s actions in education redesign affect your impression of the practicality of education redesign for your school? What knowledge can you take away from MNTHS’s changes and its results?
Chapter 12

Ears to the Ground: School Leadership in the New Millennium

By Deborah Rosalia Esparza

1. What did author Deborah Rosalia Esparza and the schools she worked with agree makes a healthy school culture?

2. How do school leaders’ objectives in teaching students differ from what corporations and the military have to do when they are conducting training?

3. What three levers of change did the author’s school recognize as the ones that would most propel school transformation and student achievement? Why did these three levers carry particular importance?

4. How does your school currently equip teachers with opportunities for data-driven professional development? How could your school improve in this area?

5. According to Esparza, what will a successful school leader of the new millennium be equipped to do?
Chapter 13

The Pivotal Role of the District

By Ken Kay and Valerie Greenhill

1. Why is the Common Core the floor, not the ceiling, for deeper learning?

2. Answer the fundamental questions for building a vision for 21st century education outcomes for students, which are provided on page 325. In reviewing your answers, how would you word your personal vision statement for your district?

3. What insight can be gained from how Upper Arlington Schools in Ohio prioritized critical thinking?

4. Name the three levels of curricula.

5. What is a capstone project? How can project-based learning (PBL) assessment strategies, portfolio-based assessments, and capstone projects be valuable assessments of the 4Cs?

6. What two conditions are fundamental in order to spur innovation? How are bold ideas and experimentation encouraged in your education system? What would you change in order to bring more imagination into your workplace?

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Chapter 14

Levers for Change: The Role of the States

By Helen A. Soulé and Steven Paine

1. To start this chapter, authors Helen A. Soulé and Steven Paine ask readers, “When you close your eyes and imagine ‘school,’ what do you see?” Answer this question. How has your image of a school changed since you started working in education? How has your image of a school changed since you were an early student?

2. What is being done at the state level where you live to transform education? How does your state department of education play a role in what textbooks and supplementary resources you implement?

3. How do your school, district, and state relate to each other in setting up privacy and safety policies for students’ technology use in school?

4. What question would you add to the list of important questions to ask when aligning assessments and accountability, which are featured on page 364?

5. Does your school have any significant, mutually beneficial partnerships with outside organizations that connect directly to your school’s vision? What organizations in government, business, or industry do you think that your school could build valuable partnerships with?
partnerships with? What assets could your school and each of these organizations contribute?