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Abstract
*Rethinking readiness: Deeper learning for college, work and life* discusses deeper learning as a requirement for student readiness for college, the world of work and for general life principles. The book was written in response to the concerns of higher education administrators and employers about the state of student readiness for college, the workplace and life in the United States. Jobs for the Future, an educational policy think-tank studies the relationships between the needs of the employment market, and educational institutions and assist schools with evidence-based policy development.

**Keywords:** Deeper learning, 21st century learning, college readiness, career readiness

1. Overview
The text is an edited compilation of ten white papers published as chapters and written by various education researchers at Jobs for the Future. The chapters originate from the Deeper Learning Research Series as an exploration of the concept of deeper learning and the current state of education (p. 6). The audience for this book includes school administrators, university faculty, and graduate students in education, educational researchers, employers, state and federal education policy-makers and elected officials who are now in the position to affect change under the Every Student Succeeds Act of 2015. Each chapter is written broadly and compiled as a conversation about the need for deeper learning in public schools as supported by the stated needs of employers and comments from college educators. Deeper learning is defined as consisting of six components identified from the research from the Hewlett Foundation: Mastery of Core Content, Critical thinking, and problem solving, Collaboration, Effective Communication, Learning to learn and Academic mindset (p.17). If the six components of deeper learning are the destination then mastery, identity, and creativity are the vehicles used to get there (p.17) Mastery, identity and creativity are identified as the “nodes” in the Deeper Learning Triangle (p. 23-25).

These briefs examine the issues facing the 21st-century student's lack of preparedness for the rigors of college, deficits in soft and critical thinking skills for the workplace and the journey taken to get to this point in educational policy. In addition, priorities in educational reform are outlined which aid in the retooling of the definition of readiness. The book is divided into three main sections: Part One: The Purposes and Goals of Secondary Education, Part Two: Access and Opportunity, Part Three: School Improvement for Deeper Learning.

2. The Purposes and Goals of Secondary Education
Part one provides a historical overview of educational reform efforts in the United States to demonstrate the evolution of practices based upon the notion of the purposes of secondary school over time. Secondary schools continued focusing solely on learning content and mastery of academic core content, delivery of content in individual units rather than using an interdisciplinary approach. The purpose of school has remained constant over time but the practices have not evolved to meet the current educational needs.

Chapters 2 and 3 discuss the need for secondary schools to aid in the transition of students from school life to work life by providing authentic, real-world experiences through partnerships with industry and business leaders to foster deeper learning. The workplace is a natural environment for learning deeply since workers regularly
collaborate, communicate, problem-solve and think critically to achieve goals and complete tasks. Other countries such as Germany, Switzerland and the Netherlands have successfully blended the academic and working worlds to form a strong educational program focusing on career readiness. A comparison of the career-preparation approaches of these countries underscores that problem of the skills gap in the U.S. and our diminished global competitiveness (p.48).

Chapter 3 places emphasis upon citizenship as another purpose of secondary education and a means to provide deeper learning experiences for students. Civics education gives students the exposure to social and political issues and the means to explore them through media literacy. Additionally, “guided experiential education” gives students the opportunity to explore social issues in their community from the safety of school where students can apply creative thinking to find solutions (p. 63). Civics education can be interdisciplinary and delivered through online platforms, remedying the lack of a dedicated civics education program in schools (p. 67).

3. Access and Opportunity

Part 1 examines the barriers to deeper learning for lower income students, the disabled and English Language Learners (ELL) and the strategies schools can use to mitigate these barriers. Chapter 4 describes the challenges that poverty and low achievement can have on traditional learning and in particular deeper learning. Teacher training, dedicated resources including the recruitment of highly qualified teachers and an institutional commitment to personalized learning, authentic teaching and learning are strategies that the research literature support as evidence to mitigate poverty, the learning gap in core competencies and encourages deeper learning.

In chapters 5 and 6, similar strategies are suggested to provide meaningful learning opportunities to students with disabilities and English Language Learners, respectively. The research literature cited in these chapters provide evidence that deliberate, well-established instructional practices provide significant gains for disabled students (p. 110). English Language Learners benefit from collaborative learning within ethnic groups because of a strong connection to their community and the researchers suggest that existing programs such as International Baccalaureate programs support multilingual learning and the increasing dual language population in the United States supports the trend toward dual language instruction. (p. 140-141).

4. School Improvement for Deeper Learning

Part 3 is an overview of the roles and responsibilities of the classroom teacher, principal and district staff members and their impact on deeper learning. Chapter 7 is an investigation of the activity of teaching and draws parallels between traditional teaching strategies and deeper learning teaching strategies. Deeper teaching supports collaboration, student communications to allow students to engage in critical thinking, and reasoning, performing tasks publicly with shared risk while building a scholarly identity (p. 173). Teachers engaging in deeper teaching can improve their practice through peer-to-peer training, practicing teaching techniques with fellow teachers and sharing classroom resources (p. 172).

Chapter 8 outlines the role of district leadership in fostering deeper learning and provides evidentiary support for productive district level support in establishing high-quality teaching practice. The research suggests that performance alignment or the establishment of a commitment to school improvement where the staff is deliberate in making decisions in the best interest of the student (p. 176). Schools benefit when the fragmented tasks of the district office combine to support the principal with instructional leadership by alleviating responsibilities for school operations, screening teaching personnel to select the most qualified candidates and providing personnel with fruitful training opportunities. (p. 180).

Chapter 9 is a discussion of assessment practices that effectively measure deeper learning contrasted with those that do not. Assessments have historically been used to classify and place students on specific pathways or focus on small units of information, resulting in shallow learning in secondary education. Given the policy changes and state autonomy provided for in ESSA, the author proposes that now is the time to radically change assessment practices to assess career and college readiness focusing on mastery of broad concepts (p. 200).
Assessments provide evidence of learning but the “big picture” assessments that demonstrate college and career readiness like project-based assessments and curriculum-task performance assessments require high quality scoring rubrics for consistency in scoring and validity.

Chapter 10 is a concise summary of the preceding chapters organized around the three main themes of the text, the general ideas discussed within each chapter and final observations.

5. Strengths and Weaknesses

In analyzing the text, several other themes emerge as strengths that help the reader frame the conversation about 21st century education. Emergent themes involve educational equity and access in the context of socio-political silos, institutional barriers to deeper learning and the evidence-based actions needed to overcome those barriers. The current school structure can be a barrier to deeper learning because of the standards-based student outcomes being measured. The data-driven nature of school accountability encourages the use of rote memorization and inconsequential activities and increased standardized tests scores as evidence of learning. The introduction of alternative assessment strategies can help to mitigate these barriers.

The need for systemic change in educational practice and tradition supported by all stakeholders to foster deeper learning emerges as a theme throughout the book and helps to strengthen the reader’s understanding. Teachers, principals, district administrators and must be deliberate actors in the reform of teaching practices, assessment, and career-readiness activities if deeper learning is to become accessible to not only affluent students but also low income, disabled and English Language Learners.

A final theme is the needed transitions or shifting within educational roles that must take place in order to incorporate deeper learning for all. Every Student Succeeds Act (ESSA) is a fundamental policy shift away from No Child Left Behind (NCLB) and the over-reach of school accountability as a tradeoff for meaningful instruction. The research cited in the text provides evidence that deep learning is a process of going from a "peripheral participant" who performs rote tasks of little value requiring minute independent thinking to a "cognitive apprentice" who use inquiry and exploration to gain expertise (p.17). In addition, teachers must transition from what Allison King (1993) calls the "sage on the stage" to the “guide on the side” which denotes a shift away from traditional teaching strategies to highly effective teaching strategies. A formal apparatus of teacher-to-teacher cooperation and support in providing engaging environments that foster curiosity and meaningful learning tasks align with deeper learning (p. 23). The writers agree that deeper learning for the 21st century calls for a shift away from the current structure of the school based upon the factory model operationally, focusing on individual subjects to a more interdisciplinary curriculum emphasizing problem-solving and critical thinking. (p.19). Schools should become a "community of practice" by performing authentic tasks to improve cognitive ability. In each chapter, the authors acknowledge the importance of measured student outcomes in the innovations proposed. The authors provide examples of innovative demonstrations of pedagogical instruction or the results of empirical inquiries and models of learning in actual practice that meet their definition of deeper learning. Discussions about the social-emotional considerations, the impact of poverty, ethnicity, and the social and educational status of the adolescent moving to young adulthood also further strengthen the ideas presented and innovations for each iteration of deeper learning.

The text emphasizes empirical research to support the ideas within each chapter found interwoven within the discussion. The result is a thread of ideas from researchers, contributions from business and industry stakeholders, and input from educational leaders connecting the individual chapters into one continuous and cohesive body of work. The notes section provides the reader with a comprehensive list of references from the literature useful for further research.

While the abundance of evidence to support the ideas and examples of actual practice strengthen the text, there are notable weaknesses that detract from the work. The writers acknowledge that some of the learning activities and teaching strategies that foster deeper learning are already in practice in elite schools, but there are few examples of deeper learning activities documented in lower income, underperforming schools.
There are few adaptable figures and tools offered as takeaways to help illustrate concepts described in the text. The use of infographics to visually describe the components of deeper learning where each of the six components intersects within the three "nodes" of identity, mastery, and creativity, would be helpful to the reader to comprehend these concepts.

4. Conclusion:
Overall, the text provides the reader with intuitive perspectives about college and career readiness for the 21st-century student with considerations for the future and the possibilities for implementation due to changes in attitudes, teaching strategies and education policy.

References

Rethinking Readiness: Deeper Learning for College, Work, and Life (edited by Rafael Heller, Rebecca E. Wolfe, and Adria Steinberg), this chapter argues that the deeper learning movement can revitalize civic education and that civic education can support deeper learning. Subsections examine changes in the context for civics (such as political polarization and the rise of online politics), trends in civic education, and the relevance of the whole curriculum and school climate to youth civic development. Rethinking Readiness: Deeper Learning for College, Work, and Life. As such, the book offers an impressive range of research-based food for thought regarding student readiness without advocating for any one answer to the issues facing education today. The organizational structure takes the reader through a logical flow from "where we are and how we got here" to "equity in access and opportunity" to "school improvement," and the authors touch on arguments for, among many other things, the need for a new approach to readiness that goes beyond the age-old debate of "skills vs. content" and the importance of mastery. Rafael Heller, Rebecca E. Wolfe, Adria Steinberg Jobs for the Future. Introducing the Deeper Learning Research Series. Published by Jobs for the Future | New and forthcoming titles, 2014-15. How School Districts Can Support Deeper Learning: The Need for Performance Alignment Meredith I. Honig & Lydia R. Rainey, University of Washington. The Implications of Deeper Learning for Adolescent Immigrants and English Language Learners Patricia Gándara, UCLA Graduate School of Education & The Civil Rights Project at UCLA. We work to achieve the promise of education and economic mobility in America for everyone, ensuring that all low-income, underprepared young people and workers have the skills and credentials needed to succeed in our economy.