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Paradigm Shifts in Large-Scale Educational Change: Uncovering the Oregon Education Investment Board's Theory of Change-in-Action

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Paradigm Shifts in Large-Scale Educational Change: Uncovering the Oregon Education
Investment Board's Theory of Change-in-Action

by

Johanna Kathryn Blackford

A dissertation submitted in partial fulfillment of the
requirements for the degree of

Doctor of Education
in
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Portland State University
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Abstract

Education system leaders and policymakers around the globe expend vast amounts of resources on educational reform efforts and despite positive intentions, most attempts to affect educational change fail to realize large-scale, sustainable, positive outcomes—yet some have. While it is widely acknowledged that no two systems’ educational change journeys are the same, what is becoming clear is that there is significant similarity among the thinking or paradigms underpinning theories of change-in-action guiding positive large-scale system-wide reform. This research highlights four change paradigms and suggests that a collective learning paradigm guided by systems thinking represents the paradigm shift associated with successful large-scale change. With pragmatic aims, this study employs single, holistic case study methods to uncover the theory of change-in-action of the Oregon Education Investment Board (OEIB)—a governor-appointed board operating between 2011 and 2015 tasked with coordinating a seamless system of public education within the U.S. state. Analysis and synthesis of the OEIB’s collective actions reveal that “*education as workforce development*” was the primary aim of the reform, with an “*outcome focused nexus*” as the primary driver guiding the theory of change-in-action. Comparison with change paradigms, including those guiding the best systems in the world, highlight that the OEIB maintained the U.S. paradigmatic neoliberalist status quo for standardized market driven educational change despite espoused aims and efforts to do otherwise. This research highlights the relative invisibility and persistence of change paradigms as a critical source of replication of

errors of the past. Development and use of change paradigm ideal types may help liberate those working within an educational system by unlocking the door to new ways of conceiving common dilemmas and identifying new policies and connected strategies that arise from a collective learning systems thinking paradigm known to be more successful.

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Preface

The initial spark that ignited my long-term interest in educational change began almost 15 years ago when our young family left Toronto, Canada for Portland, Oregon, USA. My husband was hired at a company he'd long admired with an opportunity too good to pass up. I agreed to leave my exciting career with the Toronto District School Board and our daughter said farewell to her kindergarten friends.

Once in Oregon we learned that my visa prohibited me from working (or having a bank account) and our daughter was too young to attend public school and had to go back to pre-school. Having every intension of resuming my career in the classroom, I began to volunteer with education related organizations across the city (teaching, developing curricula, grant writing, serving on boards etc.) and was accepted into the International Teacher Education Program at Portland State University. Through these experiences I quickly realized that my assumptions about education I'd become familiar with in Toronto were not the same in Portland. Over the years Ontario's system of education became one of the top educational systems in the world, while Oregon remained stagnant. This contributed to my continued interest in exploring and inquiring into the roots of my Ontario-based view of the field of educational change and its similarities and differences to other systems.

I began my doctoral journey around the same time that seminal publications in the field of global educational change were being released and the state of Oregon was organizing for a massive education reform. I was fortunate to be invited to sit at the table during the early days of reform strategizing with the Oregon Network for Quality

Teaching and Learning, Chalk Board Project, and All Hands Raised Partnership. Later I was invited to intern with the Oregon Advocacy Commission in partnership with the OEIB Equity and Partnership subcommittee where I drafted policy briefs related to English learners and disproportionate discipline. During 2012 and 2013 I attended approximately 70% of OEIB meetings in person, gradually switching to streaming meetings as the option became available. Over the tenure of the OEIB I had ample opportunity to engage in listening to the work of state level reform organizers. From this vantage point I am confident in saying that each and every one of the OEIB members and staff, in their own way, truly cared about students, improving education, and bettering life for all throughout the state.

Large scale educational change is hard, and often has limited success. Shortly after my proposal defense, the OEIB ceased to exist. The gap between good intentions and improvement had not been realized in any notable way. The role of the Chief Education Officer and the small agency renamed the Oregon Chief Education Office continued to operate on a smaller scale until its sunset June 30, 2019. Yet, many of the initial reform's mandates and goals remain intact in state legislation and thus the pragmatic aims of this research remain. As I conclude this work, I am circling back to Toronto in support of another new job opportunity too good to pass up and looking forward to reconnecting with colleagues

Chapter 1: Introduction

Reality is made of circles; and we think in straight lines” (Senge, 1996, p. 73).

Education policymakers and system leaders around the globe expend vast amounts resources on educational reform efforts to improve individual, social, and economic well-being in today’s rapidly changing, post-industrial knowledge era (Darling-Hammond, 2010; Friedman & Mandelbaum, 2011; Hargreaves & Shirley, 2009). Despite positive intentions, time, resources, and (often) plenty of publicity, most efforts to effect educational change fail to achieve large-scale, sustainable, positive outcomes—yet some have (Hargreaves & Shirley, 2009; Mourshed, Chijioke & Barber, 2010; Ng, 2017; Sahlberg, 2011). While it is widely acknowledged that no two journeys to educational change are the same, there appears to be a significant similarity among the paradigms underpinning theories of change-in-action that drive positive large-scale, system-wide reform around the globe (Barber & Mourshed, 2007; Hargreaves & Shirley, 2009, 2012; Mourshed et al., 2010). This dissertation examines the large-scale system-wide change efforts of the U.S. state of Oregon between 2011 and 2015, exploring the theory of change-in-action and comparing it with ideal change paradigms that have been used in some of the most successful educational change efforts across the world. It is hoped that this research will encourage open discourse surrounding the identification of theories of change-in-action and the merits and pitfalls of educational reform paradigms in Oregon and beyond. It may also enable new ways of conceiving of common

educational reform dilemmas, potentially leading to new, promising strategies and policy directions.

Contemporary global research into large-scale educational change efforts has revealed that, at the heart of these efforts, there are often implicit and unexamined theories of change-in-action that do not align with the requirements for disruptive transformation in the 21st century (Fullan, Quinn, & McEachen, 2018; Rincón-Gallardo, 2019; Sahlberg, 2011, 2015). A theory of change-in-action represents the interplay between human beliefs about the purpose of change (the “why” represented by paradigms or worldviews) and the actions taken to achieve the desired outcome (the “how” represented by policies and connected strategies (Hargreaves & Fullan, 2009b). A theory of change-in-action may be “implicit, or explicit, reflectively aware, or blindly willful . . . [and is] driven by . . . beliefs, [values], and assumptions concerning how and why people change, and what can motivate them or support them to do so” (Hargreaves & Fullan, 2009b, p. 1). It is the logic linking the paradigm or worldview of a change effort to connected policies and strategies that have already been enacted (Hargreaves & Fullan, 2009b).

Research focused on uncovering the theory of change-in-action in large-scale education systems undergoing whole-system improvement has found that successful systems share a paradigm that guides connected actions, which is different than the paradigm used by systems that are stagnant or moving backwards (Hargreaves & Shirley, 2009, 2012; Mourshed et al., 2010; Sahlberg, 2011; Scharmer & Kaufer, 2013). Improved systems adapt to a fast-paced, changing world, whereas stagnant systems,

which often use repackaged versions of strategies developed in the past, do not (Fullan et al., 2018; Janc Malone, 2013; Janc Malone, Rincón-Gallardo, & Kew, 2018; Rincón-Gallardo, 2019). Uncovering theories of change-in-action that guide large-scale educational change efforts is an essential first step toward identifying and debating strengths and weaknesses in the change logic or paradigm underpinning a given education system's reform strategy, and this can shed insight into the likelihood of a reform's potential for success (Hargreaves & Fullan, 2009b; Meadows, 2008; Scharmer, 2016; Scharmer & Kaufer, 2013).

One challenge of examining large-scale change is that the implicit, assumed nature of theories of change-in-action make them difficult to capture and express, and thus they often go unexamined (Hargreaves & Fullan, 2009b; Mourshed et al., 2010). The focus of this study is on uncovering and illuminating the theory of change-in-action that guided the Oregon Education Investment Board (OEIB), a government-appointed state board that was tasked with an urgent mandate to reform the stagnant state education system between 2011 and 2015.

In this chapter, I first present a contemporary background on the problem of systems change from a global perspective and then introduce the paradigm underlying change-in-action theory. Using Scharmer's (2018) matrix of economic evolution and previous works (Scharmer, 2009; Scharmer & Kaufer, 2013) as a grounding point, I link the educational theories of change-in-action described by a number of researchers (Fullan, 2018; Hargreaves & Shirley, 2009, 2012; Mourshed et al., 2010; Rincón-Gallardo, 2019; Sahlberg, 2011). Then, I focus on the large-scale local system change

efforts in the state of Oregon—specifically, those of the OEIB from 2011–2015—to define the purpose, research question, and methods guiding this study. I conclude by presenting key terms and concepts.

Background of the Problem

A global problem. A majority of education systems around the globe are currently in the midst of some type of reform or transformation efforts in order to improve individual, social, and economic outcomes in today’s rapidly changing post-industrial era (Fullan, 2010; Hargreaves & Shirley, 2012; Janc Malone et al., 2018; Mourshed et al., 2010; UNESCO, 2014). This era is marked by increasing global interdependency as well as accelerating innovation in technology, which are challenging the power structures that have long been taken for granted (Friedman & Mandelbaum, 2011; Homer-Dixon, 2006; Marx, 2014).

In addition to expanding opportunities and possibilities, rapid change has led to disruption and instability on a massive scale, including faltering economies, ecological disasters, social inequality, and health and wealth disparity (Friedman & Mandelbaum, 2011; Homer-Dixon, 2006; Marx, 2014). Unemployment, underemployment, and poverty plague many societies (UNESCO, 2014). In some sectors, pressure is increasing as a result of disruption to traditional economic systems, which creates an urgent need to strike a balance between citizens’ skill sets, viable livelihood opportunities, and a sense of contentment within one’s community and life (Kay, 2010; Meadows, 2008; Wagner, 2012).

Scharmer and Kaufer (2013) categorized today's global pressures into three divides: the ecological divide (i.e., the global economy is consuming the resources of one and a half planets), the social divide (i.e., eight billionaires own as much as half of all of humankind), and the spiritual-cultural divide (i.e., 800,000 people commit suicide each year, more than those killed by war, murder, and natural disasters combined). The authors pointed out that the trends that caused these divides (the loss of nature, society, and self) are on the rise in the 21st century and are leading to results that (almost) no one wants. They argued that individuals and societies have a blind spot regarding the root issues of these divides: "People see what we do—the results—and see how we do it—the process . . . but are not usually aware of the source—the inner place from which we operate" (Scharmer & Kaufer, 2013, p. 19). The "source" to which Scharmer and Kaufer (2013) referred is described by others as the "why" (Sinek, 2009), the paradigm (Kuhn, 1996; Meadows, 2008), or the *weltanschauung* or worldview (Ackoff, 1999; Checkland & Scholes, 1993).

A hallmark of healthy local and global communities is an equitable education system that can co-evolve with society to equip future generations to exist in a world that will undoubtedly be dramatically different than the world of the present (Banathy, 1973; Scharmer, 2018; Senge, 2010). Calls to reform education systems (defined as all the schools within a particular region, state, or nation) are plentiful, as education is widely recognized as a pathway to personal and societal productivity and well-being (Darling-Hammond, 2010; Fullan, 2016). Here, "positive or successful change" refers to more than improvement on a narrow set of test scores in a few key subjects; rather, it refers to a

much broader array of factors. It includes what Fullan et al. (2018) identified as the global deep learning competencies necessary for the unpredictability of 21st-century life—character, citizenship, creativity, collaboration, critical thinking, and communication—across a broad spectrum of subjects and activities (Fullan et al., 2018; Fullan, 2011b; Sahlberg, 2011; Schliecher, 2009).

The potential for high-quality education systems to equip people with the tools to successfully negotiate widespread and rapid change has led many governments to place education at the forefront of political agendas as a means of addressing the complex challenges of contemporary society (Mourshed et al., 2010; Sahlberg, 2018; Schliecher, 2009). Despite good intentions, however, most efforts to positively impact education at the local and system levels fail to bring about sustained large-scale improvements that align with the demands of the 21st century (Fullan, 2016; Rincón-Gallardo, 2019). Nevertheless, some have, and within relatively short periods of time (Fullan, 2011b; Mourshed et al., 2010; Ng, 2017; Sahlberg, 2011).

While it is widely acknowledged that no two systems' educational change journeys are the same given their unique socio-cultural, political, and economic contexts, systems change research has revealed that there is a significant similarity among the thinking or worldviews underpinning the theories of change in those systems that show sustained successful improvement (Fullan, 2013b; Fullan et al., 2018; Hargreaves & Shirley, 2012; Janc-Malone, 2013). Specifically, successful systems feature a systems thinking mindset. This mindset is remarkably different than that in education systems

that are less successful in their efforts to achieve measurable improvement (Hargreaves & Shirley, 2012; Mehta, 2013; Scharmer & Kaufer, 2013).

Change paradigms. It is generally agreed that there is an evolution of paradigms that guide thought and action over time (Hargreaves & Shirley, 2012; Scharmer, 2018; Scharmer & Kaufer, 2013). These paradigms can briefly be described as follows:

1. Traditional hierarchy (top-down)—central state authority
2. Standardized market (ego-system)—measured competition
3. Negotiated implementation (special interest)—stakeholder networks
4. Collective learning (eco-system)—social movements for democratic emancipation

Each paradigm is an evolution of the previous one and is deemed to more effectively bring about change and align with 21st century global society. The traditional hierarchy is representative of industrial era scientific management. The second paradigm, standardized market, is represented by neo-liberalist free market economic thinking and is the hegemonic paradigm in the U.S. (Fullan, 2009, 2011a; Sahlberg, 2011). Negotiated implementation is aligned with a notion of social markets or competing NGO interests. The fourth paradigm, collective learning, is represented by sustainable eco-system thinking and is aligned with a systems thinking view of the world (Scharmer & Kaufer, 2013). Within the field of educational change, it is collective learning that underpins sustained education system improvement (Fullan et al., 2018; Hargreaves & Shirley, 2012; Ng, 2017; Rincón-Gallardo, 2019; Sahlberg, 2018).

Systems thinking. One may ask, “What is systems thinking, and how can it be used as a theoretical framework?” Systems thinking, as a theoretical framework, suggests

that “to make sense of the complexity of the world, we need to look at it in terms of wholes and relationship rather than splitting it down into its parts and looking at each in isolation” (Ramage & Shipp, 2009, p. 1). A systems thinking perspective contends that in order to cope with problematic (social) situations with increasing complexity (due in part to accelerating change), it is necessary to reimagine our view of the world and our methods of inquiry (Ackoff, 1999; Checkland & Scholes, 1993). Those who subscribe to this worldview maintain that it is part of a new era concerned with designing a desirable future and inventing ways to achieve it that involve learning from the future as it emerges (Ackoff, 1999; Banathy, 1991; Ramage & Shipp, 2009; Scharmer, 2009). Thus, they argue that shifting toward a systems thinking paradigm can help illuminate new solutions to old problems (Ackoff, 1999; Argyris, & Schön, 1974; Ramage & Shipp, 2009; Scharmer, 2018).

The field of educational change. The first decade of the 21st century was characterized by massive advances in knowledge about and the understanding of large-scale educational change. Fullan (2009) attempted to describe the recent history of large-scale change in an article published in the *Journal of Educational Change*, paying particular attention to the period from 1997 to 2009. According to Fullan (2009), in England and Finland, the period from 1997 to 2002 marked “the first time we witness[ed] some specific cases of whole system reform in which progress in student achievement was evident” (p. 101). An essential characteristic of the reform efforts in both England and Finland was that the theories of change-in-action in both education systems were explicitly described (e.g., *Instruction to Deliver* by Barber [2007]; *Finnish Lessons* by

Sahlberg [2011]). This clear articulation allowed for a better understanding of the strategies and connected policies that were enacted and comparison of the results.

From 2003–2009, some notable, successful large-scale reform efforts took place in, for example, Singapore; Alberta and Ontario, Canada; Hong Kong; and South Korea. In contrast, Fullan (2009) pointed out the lack of productive change within the U.S. during this same time period. He noted, with the exception of some success at the school district level since 2000, the lack of positive change was due in part to “the presence of a policy without a strategy in the form of No Child Left Behind” (Fullan, 2009, p. 101). Nations that adopted an approach aligned with a systems thinking view were far more successful in improving a broad spectrum of student outcomes.

In 2009, Hargreaves and Fullan (2009a) teamed up as co-editors of *Change Wars*. This seminal volume invited 11 leading educational thinkers and change agents from around the world, including Barber, Darling-Hammond, Elmore, and Schleicher, to describe their theories of educational change-in-action and, in so doing, solidify both the term and practice in the field of educational change. The essence of this work is best described in the editors’ own words:

In the end, we may not and should not get one universal change theory that transcends all people, situations, time and space. But we will start to understand better how and why we approach change in the way we do and even find some areas of broad agreement that can bring us together while we continue to debate the differences. (Hargreaves & Fullan, 2009b, p. 5)

The need to illuminate the theory of change-in-action is a topic on which leaders in the field of educational change generally agree.

Hargreaves and Shirley (2009) offered another critical springboard for accelerating the field of educational change in *The Fourth Way: The Inspiring Future for Educational Change*, in which they present a matrix of historical and emerging paradigms that guide educational change-in-action. The most successful paradigm (i.e., the fourth) aligns with a systems thinking view. In 2012, McKinsey and Company's Social Sector on Education published *How the World's Most Improved Systems Keep Getting Better* (Mourshed et al., 2010), in which a paradigm shift toward systems thinking was found to be key for moving from one stage of education system success to the next.

In 2013, MIT systems thinker Scharmer and colleague Kaufer published *Leading from the Emerging Future: From Ego-System to Eco-System Economies—Applying Theory U to Transforming Business, Society, and Self* (Scharmer & Kaufer, 2013). This breakthrough work further solidified the emergence of the systems thinking paradigm of thought not only in education but also across multiple sectors around the globe.

More recently, the emerging systems thinking paradigm for educational change is gaining clarity as examples of it in action continue to be described. Rincón-Gallardo (2019) described educational change in the global south and points to it as a social movement that is helping to unify the fields of educational change and social justice. Fullan et al. (2018) emphasized deep learning as a core part of the emerging paradigm of change in their international work with *New Pedagogies for Deep Learning* where they “work alongside educators to change the role of teachers” (*New Pedagogies for Deep Learning*, n.d.).

Understanding and articulating change paradigms enable increased clarity regarding an evolutionary shift in thought that is promising for systems engaging in large-scale educational reform efforts. Hargreaves and Shirley (2009) stated that the “ways” or change paradigms align with sociologist Weber’s concept of ideal types, which “exist nowhere in their entirety yet can still be classified as having certain traits because they help us explain the main properties of cultures or systems” (Hargreaves & Shirley, 2009 p. 11).

A local issue. Uncovering existing theories of change-in-action and comparing them to ideal types of change paradigms allows new solutions to old, often intractable problems to be revealed. It is for this reason that I aim to uncover the large-scale educational reform theory of change-in-action adopted by the OEIB between 2011 and 2015. In 2011, the U.S. state of Oregon, which includes over half a million students in more than 1,200 schools, embarked on a large-scale educational-system change effort that was overseen by the new OEIB. Chaired by the state governor at the time, the OEIB aimed to oversee an effort to build a unified system for investing in and delivering public education from birth to college and career.

On its website at the time, the OEIB stated that it the OEIB envisioned a system that would link all segments of the educational experience together to ensure each student is poised for a promising future. This structure represented a significant departure from past practice. With the support of the legislature, the governor would become the superintendent of public instruction and chair of the OEIB, a policy board, which was comprised of appointed members representing business, school, community, educational,

and professional interests. The OEIB possessed broad power over five previously independent state agencies (those dealing with early childhood education, K-12 education, community colleges, 4-year state universities, and youth development programs) and was charged with ensuring that each sector within the state was aligned, proficient, and accountable. The OEIB's theory of change-in-action remained largely implicit in the OEIB's operations.

This study focuses on identifying the OEIB's theory of change-in-action and comparing it against ideal types of change paradigms, including those adopted by the most successful education systems in the world.

Educational change researchers continue to suggest that a critical step in educational change management is to explicitly, and publicly articulate the chosen theory of change (Hargreaves & Fullan, 2009a; Hargreaves & Shirley, 2012). Doing so requires explicitly describing how the change efforts (i.e., policies and connected strategies) that emerge from a theoretical stance (i.e., the change paradigm) align (or do not align) with the theory of change-in-action. This study, which illuminates of a theory of change-in-action and compares it with paradigms that guided successful change efforts, is intended to encourage open discourse and debate about the merits and pitfalls of change efforts and open the door to new ways of conceiving issues and challenges.

Statement of the Research Problem, Purpose, and Educational Significance

Healthy local and global communities have equitable education systems that are capable of co-evolving with society to equip students for the future, which will undoubtedly be dramatically different than the present (Ackoff, 1999; Fullan, 2016;

Fullan et al., 2018). Unfortunately, despite good intentions, many education systems remain stagnant as the world advances, creating a gap between learning and the skills needed for success in an uncertain future (Kay, 2010; Wagner, 2012).

Efforts to close this gap are often implicitly built upon the same rationale that created the gap in the first place (Barber, 2007; Sahlberg, 2011). New and different questions arising from a different worldview are needed; otherwise, past mistakes will be repeated in new and different ways (Ackoff, 1999; Banathy, 1991; Scharmer, 2016). To effect system change, we need to move away from questions focused on only parts of problems within the system, such as the following: What's wrong with the system and how can we improve what we have? How can we provide more instructional time? How can we increase achievement in basic skills? How can we discipline more effectively? How can we ensure more parent involvement? How can we create better tests? Real change must come from a more holistic view of education in society (i.e., a systems view) that challenges old ways of thinking, core ideas, and core values. This view may raise questions such as the following (Banathy, 1991; Fullan, 2013a; Fullan et al., 2018; Rincón-Gallardo, 2019): What will characterize the future? What should be the role of education in society? What approaches and strategies can we use to develop, implement, and institutionalize this new view? Clarifying theories of change-in-action is an essential step toward a change paradigm for large-scale reform that more successfully addresses current educational and societal challenges (Ackoff, 1999; Hargreaves & Fullan, 2009a; Scharmer & Kaufer, 2013).

Research method and questions. The purpose of this study is to identify and explicitly describe the OEIB's theory of change-in-action, which guided efforts to transform Oregon's education system between 2011 and 2015. I argue that only by making the theory of change-in-action explicit is it possible to begin critically examining the hidden beliefs, values, and assumptions that led to action and comparing them to ideal types of change paradigms, including those adopted by the most successful educational change efforts throughout the world. This study is guided by the following research questions:

1. What was the OEIB's theory of change-in-action?
2. How did the OEIB's theory of change-in-action align with change paradigms, including those guiding the best education systems in the world?

Methodology. This study applies a case study methodology (Yin, 2018). Specifically, a pragmatic, descriptive, holistic case-style study is performed with a single unit of analysis. To understand this case design, it is important to acknowledge that a pragmatic, rather than naturalistic, research paradigm underpins the design of this study. The aims of this research are to gain knowledge and, ultimately, to inform action.

Case. The OEIB's theory of change-in-action is the case examined in this study. The theory of change-in-action does not concern individuals or organizations, but sets of processes, decisions, and strategies and their association with distinct worldviews. Thus, the unit of analysis is the collective actions of the OEIB.

Boundaries. This case is bounded by the inauguration of the governor during the period under study and the last meeting of the OEIB in January 2015.

Data collection, analysis, and synthesis. The data used in this case study are public documentary evidence. Holistic coding of the OEIB's actions over time enabled thematic analysis. Then, the OEIB's actions over time were synthesized to illuminate the OEIB's theory of change-in-action. This theory was then compared to ideal types of paradigms, including those used in the most successful education systems across the world.

Key Terms and Concepts

The field of educational change research: Educational change is an interdisciplinary field concerned with educational innovation, reform, and change management brought about by social change and shifting contexts of educational reform. The turn of the millennium marked what Fullan (2009) called the “coming of age” of the field. This is when Springer's *International Handbook of Educational Change* (Hargreaves, Lieberman, Fullan, & Hopkins, 2010) was published; the international, interdisciplinary, peer-reviewed *Journal of Educational Change* was founded; and the American Educational Research Association (AERA) Special Interest Group on Educational Change was established. Each of these resources, which was intended to support educational change initiatives, is steadily evolving, challenging the status quo offering new possibilities for reform, and gaining in global influence.

The new millennium also saw the debut of the now widely referenced Organization for Economic Cooperation and Development's (OECD) unique Programme for International Student Assessment (PISA) which “measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life

challenges” (OECD, n.d., para.1). This marked a pivotal shift toward deeper, more intentional, collaborative international learning about large-scale educational change. For almost two decades, these resources have created a vibrant space for interdisciplinary discourse and debate that continues to foster new learning and provide new insights into the possibilities, challenges, and complexity of education systems’ approaches to sustain improvement.

Large-scale educational change: In this study, “large-scale reform” refers to deliberate strategies that are explicitly tied to policies intended to change a system within an entire region, state, or nation (in the case of an education system, every school within the system). In the inaugural issue of the *Journal of Educational Change*, Fullan (2000) defined “large” in “large-scale” as meaning no less than 20,000 students or 50 schools, and he offered the term “whole-system reform” to describe significant, widespread change.

Theory of change-in-action: Educational change experts Hargreaves and Fullan (2009b) described theories of change-in-action as the underlying beliefs and assumptions held by an individual or group about how and why a desired change is brought about. Theories of change-in-action represent the interplay between human knowledge about system change (the “why”) and the actions to enact change (“the how”). A theory of change-in-action may be “implicit, or explicit, reflectively aware, or blindly willful [. . . and is] driven by . . . beliefs, [values], and assumptions concerning how and why people change, and what can motivate them or support them to do so” (Hargreaves & Fullan, 2009b, p. 1).

The concept of theories of change-in-action used within this study should not be confused with more linear change frameworks, such as the popular Theory of Change approach, which is used for linear mapping of program outcome goals and evaluation of system change in the philanthropic and not-for-profit sectors (Kellogg Foundation, 2007). The theories of change-in-action discussed in this study are more holistic in that they encompass the complex situation in which they are embedded and serve as the critical link between worldviews and policies with connected strategies (Hargreaves & Fullan, 2009b).

Figure 1 further elucidates the distinction between the Theory of Change framework and theories of change-in-action. The star represents where I view theories of change-in-action within the praxis of large-scale change. I define a theory of change-in-action as the thread of logic linking why change efforts are being made (i.e., the worldview) to how the change efforts are being implemented (i.e., strategies and connected policies).

Systems thinking: Systems thinking is both a worldview and a method of inquiry about the world that emerged in response to the limits of the industrial/machine age mindset for dealing with complex, persistent dilemmas (Ackoff, 1999; Checkland, 1999; Meadows, 2008). It is a broad, interdisciplinary, and rich field that many within the field describe as a new paradigm. Systems thinkers view humans and human social systems (e.g., education systems) as the same; all individual and collective human interactions are part of the system, its problems, and its solutions (Ackoff, 1999; Banathy, 1991; Stroh, 2015). In other words, systems thinkers assume that if we are to understand change in a

human social system, we must first understand change in ourselves, in our thinking, and in our actions (Meadows, 2008; Scharmer, 2016; Stroh, 2015). Although not always explicitly, leaders in the field of educational change are beginning to write from a systems thinking perspective (Fullan et al., 2018; Hargreaves & Shirley, 2012; Ng, 2017; Rincón-Gallardo, 2019).

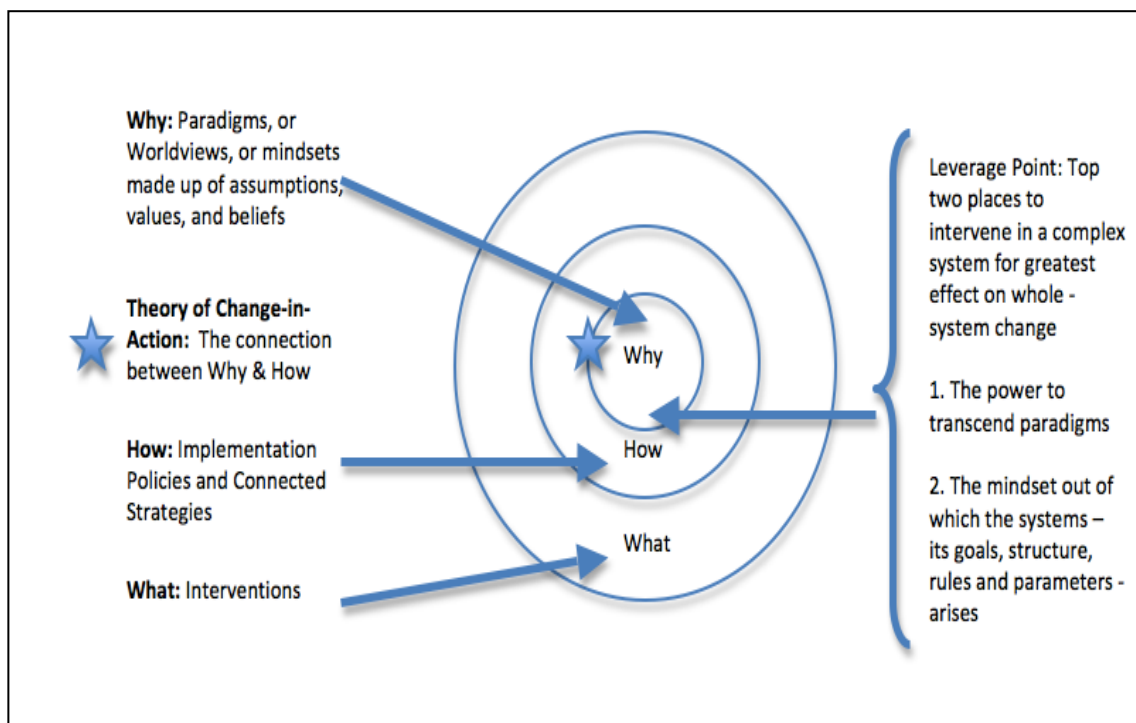


Figure 1. Locating a theory of change-in-action. Adapted from Hargreaves and Fullan (2009b), Meadows (2008), Scharmer (2009) and Sinek (2009).

Paradigm shifts: Kuhn (1996), who is well known for his description of the structure of scientific revolutions, argued that to shift from one way of thinking to another, one needs to both see the worldview or paradigm from which one is working and

a promising alternative. Furthermore, Kuhn said that the alternative worldview must be believed to have better solutions to the problems experienced under the current paradigm.

Leverage points: Meadows' (1999) paper "Leverage Points: Places to Intervene in a System" highlighted that paradigms are mental models representing how one sees the world, but they are just that: models. She defined paradigms as "the shared idea in the minds of society, the great big unstated assumptions—unstated because unnecessary to state; everyone already knows them—constituted that society's paradigm, or deepest set of beliefs about how the world works" (Meadows, 1999, p. 15) and argued that even a small shift in thinking can produce large, widespread changes. This type of change can happen in an instant for an individual, but societies tend to resist changes and challenges to paradigms (Meadows, 1999).

Summary

There is significant similarity among the worldviews underpinning the theories of change-in-action that drive positive large-scale system-wide reforms, and they are very different from those adopted in less successful change efforts. I argue that the worldviews of positive reform can be described as a paradigm shift toward a systems thinking worldview. This pragmatic, holistic, descriptive case study seeks to reveal and clearly describe the theory of change-in-action adopted by the OEIB, a governor-appointed board tasked with overseeing a seamless system for investing in and delivering public education in the U.S. state of Oregon. Describing a theory of change-in-action opens the door for further discourse and debate, which may redefine the merits and pitfalls of current educational reform efforts. This, in turn, may produce new ways of

conceiving of common dilemmas and identifying new policies and connected strategies when engaging in education system transformation.

Chapter 2: Literature Review

If a factory is torn down but the rationality which produced it, is left standing, then that rationality will simply produce another factory. If a revolution destroys a systematic government, but the systematic patterns of thought that produced that government are left intact, then those patterns will repeat themselves in the succeeding government. There's so much talk about the system. And so little understanding. (Pirsig, 1974, p. 122)

Introduction

This study aims to reveal the OEIB's theory of change-in-action, which guided Oregon's educational reform efforts between 2011 and 2015, and compare it to ideal types of change paradigms, including those adopted in the most successful education systems across the world. Clarifying theories of change-in-action, especially those at the center of any large-scale educational change effort, is essential for shifting large-scale educational reform efforts toward paradigms that are known to more successfully address current educational and societal challenges. This study's argument is grounded in a systems thinking worldview, which requires clarification of mental models of action in order to better identify opportunities for action and change.

The following literature review first describes the theoretical framework of systems thinking, drawing upon Kuhn's (1996) work *The Structure of Scientific Revolutions* to enable readers to conceive of systems thinking as an emerging paradigm shift within the field of large-scale educational change. I define paradigm shifts, identify the major conditions that must be present for paradigm shifts to occur, and describe how paradigm shifts occur from a Kuhnian perspective. Next, I describe the key tenets of

systems thinking and briefly trace the roots of this paradigm, which comprises the theoretical framework underlying this study. I then review the three frameworks that served as the initial basis for my argument that systems thinking is emerging as a new change paradigm within the field of educational change. Next, I take a brief look at two recent research-based publications that appear to confirm my argument. The research is then synthesized to reveal a matrix of ideal types of change paradigms, including the most recent paradigm to emerge (referred to as collective learning), which is based on a systems thinking worldview. The cases of Finland and Singapore are presented as two very different examples of how education systems were guided (at least in part) by the collective learning/systems thinking paradigm. Then, I explore the unique nature of large-scale educational change research, reviewing common aims and outlets for publication. Finally, I review the methodological literature that has focused on the pragmatic research paradigm.

Theoretical Framework

Educational change research is beginning to illuminate a paradigm shift toward a systems thinking view of large-scale educational change. This research is conducted from this theoretical perspective.

Paradigm shift. Kuhn (1996) first presented and popularized the idea of a paradigm shift in his seminal work *The Structure of Scientific Revolution* in 1962. Within this monograph, he illuminates the existence and impact of non-linear, non-cumulative shifts in thinking within the history of scientific thought and discovery in the natural sciences, referring to these relatively rare periods of new thought and new

practice as “scientific revolutions” (Kuhn, 1996). He discussed the invisibility of changing worldviews (paradigm shifts) and their impact on the practice of established scientific communities, which he referred to as “normal science” (Kuhn, 1996).

“Normal science,” as described by Kuhn (1996), is based upon past scientific achievements that a particular scientific community acknowledges as the foundation for further practice. Normal science “is predicated on the assumption that the scientific community knows what the world is like [and] much of the success of the enterprise derives from the community’s willingness to defend that assumption, if necessary, at considerable cost” (p. 5). However, Kuhn argued that the practice of relying strictly on “normal science” to guide thinking can lead to problems that seem as if they should be solvable by known rules and procedures but persist, despite the best efforts of the most competent thinkers. He explained,

then begins the extraordinary investigations that lead the profession at last to a new set of commitments, a new basis for the practice of science . . . which in turn may lead to a redefined approach involving a non-cumulative, non-linear experience of change known as a “scientific revolution.” (p. 5)

The invisibility of revolutionary paradigm shifts, according to Kuhn (1996), is due in part to the fact that “seldom are new paradigms completed by a single man and never overnight” (p. 7). Those who embrace a new paradigm in its early stages usually do so based “less on past achievements and more on future promise” (p. 158).

Specifically, people embrace new and emerging paradigms based on the “promise of success, discoverable in selected and still incomplete examples” (p. 23). The mutual development and redevelopment of both theory and practice gradually leads to shifts toward the new paradigm, driven by the belief that the new paradigm will be more

successful than the previous one in solving acute problems identified by the community of practitioners (Kuhn, 1996).

Guided by a new paradigm, scientists perceive the world anew, leading them to engage in research differently, adopt new instruments, and look in new places (Kuhn, 1996). With a new paradigm come new puzzles and new questions. Once those within a community can take a paradigm for granted, there is “no longer [a need to] attempt to build [the] field anew, starting from first principles and justifying the use of each concept introduced” (Kuhn, 1996, p. 19). Application of the paradigm to new areas of interest within the discipline falls within the practice of normal science, although application to a new discipline can be revolutionary to those within that community (Kuhn, 1996).

Systems thinking. While the term “system” is often used within the field of education, it has many different meanings, most of which are largely undefined (Banathy, 1973). In this section, I review the roots of systems thinking and highlight some of the key tenets of systems thinking as a worldview, a paradigm shift for change, and a theoretical framework for inquiry.

What is systems thinking? According to systems thinker Ackoff (1999), the term “system” refers to more than just a concept; systems thinking “is an intellectual way of life, a worldview, a concept of the nature of reality and how to investigate it—a weltanschauung” (p. 1). Systems thinking focuses on wholes and relationships within and across systems (Ramage & Shipp, 2009).

Systems are everywhere. They may be mechanical, technological, environmental, or biological, or they may be human in nature (as is the case for organizations, health

care, and education systems; (Ackoff, 1999). Embedded in human social systems thinking is a humanistic image of social development that seeks harmony, balance, and wholeness within the world. The pursuit of social and economic justice, moral purpose, wellness, and aesthetics as well as scientific and technological mobilization to improve everyone's quality of life are fundamental goals underlying systems-thinking-based change efforts (Meadows, 2008; Scharmer, 2016).

Roots of systems thinking. While there have been a number of holistic thinkers throughout history, including Aristotle, to whom the phrase “the whole is more than the sum of its parts” is commonly attributed, the 1950s brought about a renewed version of holistic thinking beginning with Bertalanffy's general systems theory (Checkland, 1999). Ramage and Shipp's (2009) book *Systems Thinkers* provided a brief overview of a selection of 30 influential systems thinkers grouped into seven categories in order to gain an understanding of the roots of systems thinking and its application to educational change (see Figure 2).

Early systems thinking focused on general systems theory and cybernetics. General system theory focused on emergence, boundary, hierarchy, and systems in relation to their environments, while cybernetics explored “the parallels between the behavior of cognitive and engineered systems with a focus on feedback and information” (Ramage & Shipp, 2009, p. 9) and was later applied to other fields, such as biology. Early systems thinkers focused on the development of a mathematically expressed general theory of systems, but this never quite lived up to its potential (Checkland & Scholes, 1993).

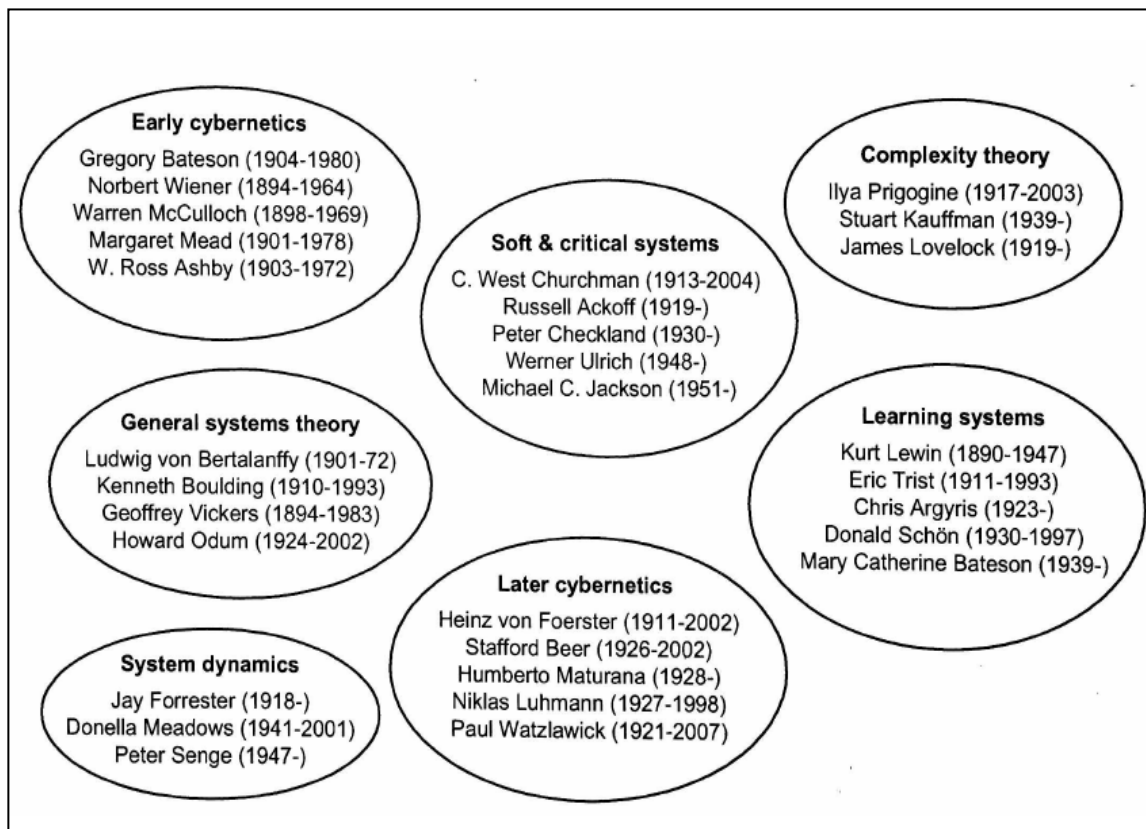


Figure 2. Selection of systems thinkers. Source: Ramage and Shipp (2009, p. 5).

Systems dynamics, which grew out of Forrester's work with systems science at the Slone School of Business at MIT, aims to reveal the dynamics underlying organizational, societal, and global systems through computer modeling (Ramage & Shipp, 2009).

Forrester's students included academic authors who moved systems thinking beyond mathematical calculations and computer modeling toward understanding the human dynamics at play within human social systems. Some noteworthy systems scholars that grew out of systems dynamics include Senge (1996), who wrote *The Fifth Discipline: The Art and Practice of the Learning Organization*; Meadows (2008), who wrote

Thinking in Systems: A Primer; and Scharmer (2009), who wrote *Theory U: Leading From the Future as it Emerges*.

Done in parallel to research on system dynamics, work on soft and critical systems focused on methodologies for systemic intervention in organizations and governments to address intractable problems, multiple perspectives, and power dynamics (Ramage & Shipp, 2009). Ackoff's (1999) *Ackoff's Best: His Classic Writings on Management* and Checkland's (1999) *Systems Thinking, Systems Practice* are well known in the management field for their advancement of soft and critical systems thinking.

Another strand of systems thinking, learning systems, is focused on "systems of learning in individual practice, groups, and organizations" (Ramage & Shipp, 2009, p. 257). Argyris' (1999) *On Organizational Learning* and Schön's (1983) *The Reflective Practitioner: How Professionals Think in Action* are two well-known works in this area.

Many systems thinkers working with human social systems reject the dualistic stance of "us versus the system," which situates the system as something that exists "out there" and is somehow separate from the humans who function within it. Such dualistic assumptions of a human social system often lead individuals and groups to disassociate themselves from the system and become victims or spectators, taking no action to enact change and thus maintaining the status quo (Banathy, 1991). Other systems thinkers, however, see humans as the system itself, based on the belief that all individual and collective human interactions are part of systemic problems and their solutions (Ackoff, 1999; Banathy, 1991; Checkland & Scholes, 1993). In other words, humans and human

social systems are one and the same. From this perspective, blaming the system for problems is, in part, to blame oneself. These thinkers hold that if we are to understand change in a human social system, we must first understand change in ourselves, in our thinking, and in our actions (Meadows, 2008). Given that humans create systems, humans also have the collective power to learn new perspectives and change systems (Scharmer, 2016).

Review of the Research Literature

There is evidence of evolution (or “re-evolution”) of the paradigms that guide successful educational change efforts, which is beginning to gain recognition. I argue that this movement is a shift toward a systems thinking approach to educational change. According to the systems thinking perspective, change initiatives must be designed to promote continuous learning and adaptation along the journey toward a collectively imagined better future. In other words, to serve the purposes for which they are designed, systems must co-evolve with society (Banathy, 1991). Fullan (2013b) wrote, “Having studied and participated in change efforts from all angles over half a century, I am convinced that the most powerful change processes gets ‘inside the human condition’” (p. xii). According to Fullan et al. (2018), “The status quo is fundamentally losing ground . . . we are and can specify the alternative . . . in what can only be called an intentional social movement [that] has the power to transform contemporary school systems” (p. xv).

Educational change paradigms. Three seminal research-based publications (and one update), which proposed matrices to explore shifts in change paradigms, served

as the basis for this study. Each adopted a different perspective, yet they drew similar conclusions. These publications are as follows:

- *The Fourth Way: The Inspiring Future for Educational Change* (Hargreaves & Shirley, 2009)
- *The Global Fourth Way: The Quest for Educational Excellence* (Hargreaves & Shirley, 2012)
- *How the World's Most Improved School Systems Keep Getting Better* (Mourshed et al., 2010)
- *Leading from the Emerging Future: From Ego-system to Eco-system Economies—Applying Theory U to Transforming Business, Society, and Self* (Scharmer & Kaufer, 2013)

Each publication is reviewed below, along with a brief look at two other recent seminal publications (Fullan et al., 2018; Rincón-Gallardo, 2019) that speak to the emerging paradigm of educational change. Then, the change paradigms are synthesized, resulting in the matrix of ideal types of change paradigms.

The Fourth Way and Updated Global Forth Way. In 2009, Hargreaves and Shirley published *The Fourth Way: The Inspiring Future for Educational Change*. In this research-based book, the authors analyze, organize, and comprehensively map the evolution of four distinctly different paradigms that guide theories of educational change-in-action. They based their research on both historical evidence and their own collective experiences related to working with and evaluating current, authentic examples of change initiatives around the globe. The book was seminal for its accessible, memorable, and useful presentation of complex data about change paradigms. In response to enthusiasm about the work, feedback from critics, and rapid advancements in the field, Hargreaves and Shirley (2012) updated their publication and matrix in *The Global Fourth Way: The*

Quest for Educational Excellence. Each change paradigm was assigned a number, with the fourth way representing the emerging new paradigm of change as it was understood at the time:

- The first way: innovative; inconsistent
- The second way: markets and standardization
- The third way: performance targets: raise the bar, narrow the gap
- The fourth way: inspiring, inclusive, innovative mission

The authors employed generational knowledge to identify disruptive and non-continuous shifts in society. They overlaid generational data onto educational change data and analyzed outlying successful educational reform efforts in order to demonstrate what they described as “the fourth way” to approach change. The results were presented as matrix of ideal change paradigms, which were compared to real-life case stories in order to put the paradigms in context and highlight change efforts in Finland, Singapore, Alberta, Ontario, England, and California that included aspects of “fourth way principles” (Hargreaves & Shirley, 2012).

Table 1 presents the matrix from *The Global Fourth Way* (Hargreaves & Shirley, 2012). Indicators are organized into three categories: pillars of purpose and partnership, principles of professionalism, and catalysts for coherence. Each section is further divided into subcategories. Each of the four ways of change are then assigned archetypes based on the data. The authors offer 15 principles to embrace the fourth way of change, which are divided into the three indicator categories. These principles are as follows: an inspiring dream; education as a common public good; a moral economy of education;

Table 1

The Global Fourth Way Matrix

	The First Way	The Second Way	The Third Way	The Fourth Way
Pillars of Purpose and Partnership	Purpose	Innovative; inconsistent	Markets and standardization	Performance targets: raise the bar, narrow the gap
	Community	Little or no engagement	Parent choice	Parent choice and community service delivery
	Investment	Minimal state investment	Austerity	Renewal
	Corporate Influence		Extensive: charters and academies, technology, testing products	Pragmatic partnerships with government
	Students	Happenstance involvement	Recipients of change	Targets of service delivery
	Learning	Eclectic and uneven	Direct instruction to standards and test	Customized learning pathways
	Teachers	Variable training quality	Flexible, alternate recruitment	High qualification, varying retention
Principles of Professionalism	Associations	Autonomous	De-professionalize	Re-professionalize
	Learning Communities	Discretionary	Contrived	Data-driven
Catalysts of Coherence	Leadership	Individualistic, variable	Line-managed	Pipelines for delivering individuals
	Networks	Voluntary	Competitive	Dispersed
	Responsibility	Local and little accountability	High-stakes targets, testing by census	Escalating targets, self-monitoring, and testing by census
	Differentiation and Diversity	Under-developed	Mandated and standardized	Narrowed achievement gaps and data-driven interventions

Note: Summarized from Hargreaves and Shirley (2012, p. 10).

local authority; innovation with improvement; platforms for change; professional capital; strong professional associations; collective responsibility; teach less, learn more; mindful uses of technology; intelligent benchmarking; prudent and professional approaches to testing; incessant communication; and working with paradoxes (Hargreaves & Shirley, 2012).

Hargreaves and Shirley (2012) described the fourth way as “a set of evidence-informed philosophies and practical strategies that are different from, and in terms of the results of high performance, superior to the preceding three ways of change” (p. 200). They concluded the book by noting that the fourth way is like a never-ending pathway. As presented by Hargreaves and Shirley, the fourth way has all the underpinnings of a systems thinking mindset and a paradigm driven by the ideal of collective learning.

As evidenced by the fact that Hargreaves and Shirley’s (2009, 2012) research-based books were published in quick succession, the speed of change and the understanding of change within the field moved—and continues to move—quickly. This is a likely sign that we are in the midst of a paradigm shift toward a systems thinking paradigm of educational change. The matrix presented within the first publication ignited the field, as it was one of the first examples to succinctly compare and contrast different ways of going about large-scale reform. Placing case stories from around the globe beside the matrix allowed those included in the research to discuss and debate the matrix, as it represented their own work in the field. The second book seemed to be specifically intended to open a dialogue with the field, clarifying and providing further examples of

claims made. As time passes, the understanding of the fourth way continues to evolve, but the main tenets hold true.

How the World's Most Improved School Systems Keep Getting Better. One year after the publication of Hargreaves and Shirley's (2009) first book, McKinsey and Company's Social Sector on Education conducted a seminal research project authored by Mourshed et al. (2010), which aimed to reveal how the world's most improved school systems keep getting better. A report of the same name grew out of the response to McKinsey's 2007 research publication, *How the World's Best Education Systems Come Out on Top* (Barber & Mourshed, 2007). The global educational change community was eager to understand more about the implementation strategies that had led to education system improvement. This research report was the first of its kind and promoted the hopeful view that any system can be improved at any starting point (Mourshed et al., 2010).

The research was based on a cross-analysis of education system data that revealed indicators of success (Mourshed et al., 2010). Twenty outlier nations whose education systems were improving faster than those in other countries, despite varied starting points, were identified. Over a period of time, the researchers conducted interviews with over 200 system stakeholders and analyzed almost 600 interventions carried out in systems featuring successful education improvement. The final report outlined common intervention purposes across a continuum of system performance stages, which the researchers labeled as follows:

- Poor to fair: achieving the basics of literacy and numeracy
- Fair to good: getting the foundations in place
- Good to great: shaping professionals
- Great to excellent: improving through peers and innovation

Table 2 provides an overview of the dominant intervention clusters across the four change journeys (Mourshed et al., 2010). The researchers found that there was a relationship between an education system's performance stage and the strictness of the central guidance of schools. Improving systems, the researchers noted, "prescribed adequacy and unleashed greatness" (Mourshed et al., 2010, p. 20). In other words, school systems did not seem to advance from one performance stage to the next without letting go of the old mindset and embracing the new. Interventions found in the poor to fair journey included scripted teaching, incentives for high performance, outcome targets, school infrastructure improvement, and fulfillment of students' basic needs to raise attendance. To move to the fair to good journey, systems increased funding, addressed the language of instruction, and increased transparency, among other things. The good to great journey focused on areas such as self-evaluation, pre-service training, and coaching, while the great to excellent journey supported collaborative practices, rotation and secondment programs, release from administrative burdens, and sharing of innovation. No system on the great to excellent improvement journey held onto interventions applied in the poor to fair journey, and the same was true for all performance stages (Mourshed et al., 2010).

Table 2

The Poor to Excellent Journey Matrix

Improvement journey	Poor to fair	Fair to good	Good to great	Great to excellent
Theme	Achieving literacy and numeracy	Getting foundations in place	Shaping professionals	Improving through peers and innovation
Intervention clusters	<p>Providing scaffolding for low-skill teachers</p> <ul style="list-style-type: none"> -Provide scripted lessons -Provide incentives for performance -Visit to schools by central officers -Increase instructional time 	<p>Data and accountability foundation</p> <ul style="list-style-type: none"> -Achieve transparency and accountability through assessments, inspections, and reliable data -Identify areas to improve 	<p>Raising the caliber of new teachers and principals</p> <ul style="list-style-type: none"> -Raise the bar for entry for new teacher candidates -Increase pre-service training quality and certification requirements 	<p>Cultivating peer-led learning</p> <ul style="list-style-type: none"> -Learning communities in schools -Flexibility and pedagogical autonomy -Rotate educators throughout the system
	<p>Ensuring schools have a minimum level of quality</p> <ul style="list-style-type: none"> -Set minimum proficiency targets -Improve physical infrastructure -Provide textbooks and learning resources -Obtain funding 	<p>Financial and organizational foundation</p> <ul style="list-style-type: none"> -Develop organizational structure of school network that shapes, governs, delineates decision-making rights -Achieve financial structure, efficiency, equitable funding 	<p>Raising the caliber of existing teachers and principals</p> <ul style="list-style-type: none"> -Provide professional development -Provide coaching on practice career pathways with teachers and leadership specializations -Increase pay accordingly 	<p>Creating additional support mechanisms</p> <ul style="list-style-type: none"> -Leverage administrative staff so teachers and principals can focus on pedagogy and leadership
	<p>Getting students in seats</p> <ul style="list-style-type: none"> -Expand seats to ensure universal access -Fulfill students' basic needs for attendance 	<p>Pedagogical foundation</p> <ul style="list-style-type: none"> -Design a learning model to increase students' capabilities (standards, curriculum) 	<p>School-based decision-making</p> <ul style="list-style-type: none"> -Perform self-evaluation -Ensure flexibility -Decentralize pedagogical rights 	<p>System-sponsored innovation</p> <ul style="list-style-type: none"> -Identify innovation among stakeholders

Note: Summarized from Mourshed et al. (2010, p. 28).

A second set of interventions, including strategies related to assessment and policy setting and leadership styles, were found to occur at all performance stages, but the interventions differed at each stage. The key conclusion is that “it’s a systems thing, not a single thing” (Mourshed et al., 2010, p. 27). In other words, a prerequisite for system improvement is changing the underlying mindset guiding the system.

While not a complete match, the shifts in thinking represented by the matrix of the four change journeys (Mourshed et al., 2010) bore a remarkable resemblance to the matrix of the four ways of change (Hargreaves & Shirley, 2009, 2012). The unifying principle was the need to shift the paradigm from which one is working in order to meet the emerging needs of the education system, which in this case involved a gradual shift in control from the center to all those within the system.

Mourshed et al.’s (2010) work received some criticism regarding some of the sampling. Some wanted more systems to be included in the poor to fair journey data. Others felt that the great to excellent journey might have been different if Finland had been included. Additionally, researchers noted that McKinsey and Company funded the study, and the company is known for producing insightful reports with the knowledge that governments and systems leaders might then hire their consulting services. Despite the criticism, this report was a seminal work in the field. Over the years since it was released, the paradigm of educational change has continued to evolve, and if the research were replicated today, authors may find an excellent to liberation performance stage.

Leading from the emerging future. Following the initial release of *Theory U: Leading From the Future as it Emerges* (Scharmer, 2009), Scharmer and Kaufer (2013)

published *Leading From the Emerging Future: From Ego-System to Eco-System Economies—Applying Theory U to Transforming Business, Society, and Self*. Based on Scharmer’s Theory U research, Scharmer and Kaufer presented a series of matrices that illuminated what they referred to as the four stages of economic evolution, which are applied across multiple fields, including education, government, health, and business. The matrices described paradigms of thought that exist within a blind spot, “the inner source from which we operate,” which then informs the process by which (or “how”) change is approached and leads to the result (the “what”), which can easily be seen (Scharmer & Kaufer, 2013, p. 19). The authors referred to each paradigm as an awareness and number them similar to an operating system:

- 1.0 Traditional awareness: hierarchy
- 2.0 Ego-system awareness: markets and competition
- 3.0 Stakeholder awareness: networks and negotiation
- 4.0 Eco-system awareness: awareness-based collective action

While Scharmer and Kaufer (2013) laid no claim to the field of educational change, their insights regarding paradigmatic shifts in thinking mirror the findings presented by both Hargreaves and Shirley (2009, 2012) and Mourshed et al. (2010), but in a more holistic and concise way. Coming from a systems thinking background at MIT Slone School of Business, Scharmer and Kaufer explicitly reveal the connections with systems thinking principles and provide examples in which the paradigms were applied in multiple fields.

Scharmer's (2009) Theory U, also known as Presencing, concerns how to learn to shift the paradigm from which we (individually and collective) operate. Scharmer and Kaufer (2013) referred to this paradigm shift:

We realized that most of the existing learning methodologies relied on learning from the past, while most of the real leadership challenges in organizations seem to require something quite different: letting go of the past in order to connect with and learn from emerging future possibilities . . . The proposition of Theory U, that the quality of the results in any kind of socioeconomic system is a function of the awareness that people in the system are operating from, leads to a differentiation among four levels of awareness. These four levels affect where actions originate relative to the boundaries of the system. (Scharmer & Kaufer, 2013, p. 19)

Table 3 outlines a relevant selection from the matrix of the four paradigms, summarized and sorted into organizational and educational institutional awareness.

This publication underscored that the shifting paradigmatic trends in the field of educational change literature were likely part of a bigger (likely global) paradigmatic shift toward a systems worldview. Scharmer and Kaufer (2013) discussed the four paradigms of thought from multiple angles while offering examples in which Theory U (learning how to change the paradigm within which we think) was applied. These efforts were critical for grounding the understanding of this topic and providing a solid macro lens to illuminate the blind spot and more confidently and consistently ask, "Within which paradigm are we operating?"

Recent update. Two recent publications in the field of educational change have begun to address key shifts in the new paradigm and thus are important to note. The first is Fullan et al.'s (2018) *Deep Learning: Engage the World Change the World*, and the second is Rincón-Gallardo's (2019) *Liberating Learning: Educational Change as a Social Movement*. Together, they re-center (deep) learning as the necessary purpose of

Table 3

The Ego-Eco-System Matrix: A Summarized Relevant Selection

Stage	Primary state of consciousness	1.0 Traditional awareness: Hierarchy	2.0 Ego-system awareness: Markets and competition	3.0 Stakeholder awareness: Networks and negotiation	4.0 Eco-systems awareness: Awareness-based collective action
Organizational awareness	Primary source of power	Coercive (sticks)	Remunerative (carrots)	Normative (values)	Awareness (actions that arise from seeing the emerging whole)
	Leadership	Authoritarian	Incentives	Participative	Co-creative
	Labor	Serfdom	Commodity	Regulated commodity	Entrepreneurship
	Capital	Human	Industrial	Financial	Cultural-creative
	Technology	Tools	Machines	System-centric automation	Human-centric
Education institutional transformation	Coordination	Central planning	Markets and competition	Networked negotiation	ABC (awareness-based collective action)
	Driving force	Authority- and input-centered, teacher-driven, teacher-centric	Outcome-centered: testing-driven, transactional	Student-centered: learning-driven, dialogic	Entrepreneur-centered, co-sensing/co-creation-driven
	Student	Student-recipient	Student-customer	Student-client	Student-co-creator
	Teacher	Teacher-authority (knows a lot, respected, obeyed)	Teacher-expert (has special skills, knowledge from training, experience)	Teacher-coach (one who instructs or trains), facilitator	Teacher-midwife (assists or takes part in bringing about a result)

Source: Scharmer and Kaufer (2013).

education and explicitly draw together the fields of social justice and educational change, understanding that (deep) learning is an act of freedom and must be the new focus of educational change and that the emerging paradigm of change is akin to a social movement. It should be noted that the convergence of learning and social justice, which appears in each publication to different degrees, is likely no accident; at the time, Rincón-Gallardo was working as Fullan's chief research officer at Michael Fullan Enterprises.

Deep learning. Fullan et al. (2018) present the findings from their most recent large-scale change effort, an international partnership called New Pedagogies for Deep Learning in which around 1,200 schools from seven countries are collaboratively reculturing education systems while reconceptualizing and changing learning and learning pedagogies. This partnership focuses on

what's important to be learned, how learning is fostered, where learning happens, and how we measure success which means creating environments that challenge, provoke, stimulate, and celebrate learning. We call this new conceptualization of the learning process—deep learning and it must become the new purpose of education. (Fullan et al., 2018, p. 13)

Deep learning shifts the focus away from traditional knowledge sets and toward acquiring six global competencies: character, citizenship, collaboration, communication, creativity, and critical thinking (Fullan et al., 2018). The work provides practical, real-life examples of deep learning in action, similar to Fullan's related work, which was described as "informed practice chasing theory" in which the best ideas are derived from working with practitioners rather than from research (Fullan et al., 2018, p. xv). Through their work, Fullan et al. (2018) found that children and youths have a natural desire to help humanity; that learning is most powerful when it is related to daily life; that working

with others is an intrinsic motivator; that young people are natural change agents; that character, citizenship, and creativity are drivers that make valuable things happen; and that deep learning connects with all, but especially those who are most disconnected from school (Fullan et al., 2018).

The findings Fullan et al. (2018) obtained from their participatory action-based partnership are nothing short of groundbreaking, even though they were obtained recently. Their work pushes the new systemic collective learning paradigm for educational change to a new level, deepening and extending what is considered possible in a radical, counterculture perspective.

Liberating learning. Rincón-Gallardo (2019) also placed learning at the center of the new paradigm for educational change, using social movements as a metaphor. In addition, he explicitly mentioned the essential need to intentionally bring together the fields of social justice and educational change in a manner that he described as “Freire meets Dewey” (Rincón-Gallardo, 2019, p. 9). According to him, “we are living in a world where both the pursuit of social justice and the ability to understand and solve complex problems are equally urgent” (Rincón-Gallardo, 2019, p. 10). He highlighted problems with the ways in which the field of educational change has historically addressed issues of social justice, stating it has been treated “rather superficially in at least two crucial ways. First, power and liberation remain either marginally or altogether invisible in the educational change field. Second, the connection between schools and the context surrounding them rarely takes center stage” (Rincón-Gallardo, 2019, p. 9).

Rincón-Gallardo (2019) offered ideas for shifting the paradigm of educational change away from the scientific management of the past and toward the liberation of

learning: “Powerful learning is liberating for those who experience it. Classroom, schools, and entire education systems can be transformed in the service of it. This can best be achieved through social movements organized around liberating learning” (p. 2). Offering examples of counterculture systems in the Global South that were highly successful in large-scale efforts to serve historically marginalized communities (e.g., the Learning Community Project in Mexico, Escuela Nueva in Columbia), Rincón-Gallardo (2019) questioned the dominant view of what is possible—and how and why—when one aims to achieve sustainable change at a large scale.

Together, Fullan et al. (2018) and Rincón-Gallardo (2019) advanced the understanding of the new educational change paradigm through action and examples within real-world contexts.

Four ideal types of change paradigms. Combining the three matrices developed by Hargreaves and Shirley (2009, 2012), Mourshed et al. (2010), and Scharmer and Kaufer (2013) with more recent insights from Fullan et al. (2018) and Rincón-Gallardo (2019), I synthesized the shared and relevant aspects of each source. In doing so, I created a more useable and updated matrix of ideal types of change paradigms, not as a definitive set of principles or ideal end-points to be sought, but as a point of reference or useful tool with which to illuminate, understand, compare, and question theories of change-in-action within one’s own context.

Using Scharmer and Kaufer’s (2013) ego- to eco-system matrix as a starting point, given its holistic applications and direct connection to systems thinking principles, I compiled and condensed key indicators to develop ideal principles. The systems indicator represents perceptions of what a system is, while the driving force represents

the organizing focus of the system. The primary source of power represents where the control of the system is centered. Equity is selected as it is more widely recognized as essential to change, but how to achieve it is defined differently across paradigms.

Conceptions of learning are now recognized as a key to positive change and again are defined differently across paradigms. Policy has varying focus and power for change across paradigms. In two cases, I borrowed indicators (i.e., capital and learning theory) from research other than the abovementioned sources to fill in identified gaps.

Hargreaves and Fullan's (2012) *Professional Capital: Transforming Teaching in Every School* extends the idea of educator capital to the education realm, while Paavola and

Hakkarainen's (2005) "The Knowledge Creation Metaphor—An Emergent

Epistemological Approach to Learning" extends Sfard's (1998) "On Two Metaphors of Learning and the Dangers of Choosing Just One" by differentiating between dominant

metaphors of learning. Finally, assessment and the teacher student relationship—key

issues in large scale education reform—are chosen and their nuanced difference defined

across paradigms. While not intended as a definitive set of indicators, each is selected for its critical nuanced differentiation across worldviews.

Table 4 presents the resulting matrix with a guiding metaphor assigned to each paradigm. Undoubtedly, cases can be made for adding more indicators, taking some away, using different ideal principles, or renaming metaphors, but it is presented a useful starting point for the purpose of this research.

Table 4

Matrix of Ideal Types of Change Paradigms

	Traditional Hierarchy (Top-Down) Central State Authority	Standardized Market (Ego-System) Measured Competition	Negotiated Implementation (Special Interest) Stakeholder Networks	Collective Learning (Eco-System) Social Movements for Liberation
System	Up there; no control; compliance-based	Out there; blame the system	Out there; can be influenced by powerful voices	Humans are the system; actors play a role in maintaining or changing the status quo
Driving Force	Authority- and input-centered	Outcome-centered	Student-centered	Entrepreneur-centered, co-creative
Primary source of Power	Sticks (punishment)	Carrots (incentives)	Normative (values)	Awareness; actions arise from seeing the emerging whole
Equity	Not a focus; equity ignored, or equality achieved	In service of the market	In service of stakeholder groups	Social justice; student engagement in activism
Learning Metaphor	Acquisition-transmission	Acquisition-transactional	Participation-transactional	Knowledge creation-transformative
Policy	Generally weak or undeveloped policy	Serves market and standardization; data-driven	Negotiation; lobbying for a piece of pie	Informed practice with practice-informed policy
Primary Capital Valued	Human	Business	Contrived professional	Professional
Assessment	Inconsistent	External accountability	Professional accountability	Professional responsibility, internal accountability
Teacher–Student	Authority–recipient	Expert–customer	Coach or facilitator–client	Co-creative

Note: Adapted from Fullan et al. (2018), Hargreaves and Fullan (2012), Hargreaves and Shirley (2009, 2012), Paavola and Hakkarainen (2005), Rincón-Gallardo (2019), Scharmer and Kaufer (2013), and Sfard (1988).

Traditional hierarchy. This paradigm is characterized by a top-down, authoritative approach to leadership and central control. Authority, the driving force, is input-centered, and power resides with those in authority. Educational policy can be weak and underdeveloped, and assessment is often inconsistent. Equity is generally not a focus, and sometimes equality can come into play. People are valued for what they independently bring to the table. The teacher–student relationship is similar to an authority–recipient relationship, in which learning is defined as the transmission and acquisition of information. The system is compliance-based and “up there,” with no perceived control to change it.

Standardized market. The standardized market paradigm is decentralized and values free-market competition. The individual is more important than the collective, and thus it can be described as an ego-system. The driving forces are outcomes that are primarily measured by external assessments. Decisions are data-driven to produce the “best” outcomes. Systemic equity is considered as it can influence the data and drive better outcomes on which to be measured. Aligning the workforce to fit current economic needs helps achieve even better outcomes. The teacher–student relationship is that of an expert and customer, in which the student’s learning is transactional and he or she acquires individual knowledge that can be measured later. The system is seen as “out there,” running itself, and inaccessible.

Negotiated implementation. This paradigm has conflicting tensions; special interest groups and stakeholder networks negotiate and lobby for their piece of the pie. Although students are the center, power is normative, and not all fit the norm. Equity is

considered in service of the stakeholder groups, meaning that it is addressed in so far as it is successfully lobbied for. There is professional accountability for assessment outcomes, but professional capital is often contrived. The teacher is the coach or facilitator, while the student is the client. Learning is transactional and participatory. The system is seen as “out there,” but powerful voices can influence it.

Collective learning. This holistic paradigm places the liberating act of deep learning at the center of the eco-system, and equity is seen as social justice and activism. Education is seen as life itself, and young people are viewed as important agents of change. Policy is informed by practice in a dialogic relationship. The teacher–student relationship is one of co-learning and co-creation in which new knowledge is created through the learning process. Professional capital is valued, and collaborative, creative environments are created. Assessment is seen as a professional responsibility with internal accountability. Power comes from awareness of the emerging whole, which stimulates action from all segments of the system to achieve the desired emerging future. The system is understood as the actors within it who have the power to perpetuate the status quo or change it through social movements for democratic emancipation.

Collective learning systems. Below are two very different examples of highly successful system-wide change. The first, which occurred in Finland, was guided by the collective learning paradigm, but it occurred over a long period of time, and unlike other systems operating with a standardized market paradigm, the nation came to understand the roots of its success. The second example occurred in Singapore. Singapore is unique in that system leaders clearly recognize and articulate they are in the midst of a paradigm

shift. Paradoxically, this shift is guided by both the traditional hierarchical paradigm and the collective learning paradigm simultaneously. Singapore acknowledges and values tensions between the old and new, shifting the national mindset while honoring cultural tradition.

Finland. The Finnish system of education was admired across the world after coming out on top of the OECD's international testing program, PISA, for the third time in 2007, much to its own surprise. The global educational change community wanted to know what they could learn from the country. Sahlberg (2011), a Finnish education leader, helped address this by publishing *Finnish Lessons: What Can the World Learn from Educational Change in Finland*. He described what he called the Global Education Reform Movement (GERM), a growing trend in large-scale educational change in which systems appear to slide backwards in international achievement measures (Sahlberg, 2011). GERM systems focus their strategy and policy on standardization, core subjects, low-risk ways to reach learning goals, corporate management policies, and test-based accountability (Sahlberg, 2011). GERM is firmly rooted in a standardized market paradigm of thought. The Finnish system, in contrast, focused on strategies and policies that are highly confident in teachers and principals as professionals; encouraged teachers and students to try new ideas and approaches to ensure that imagination and creativity remain at the heart of learning; and defined the purpose of teaching and learning as the pursuit of happiness through learning and cultivation of development of the whole child. The Finnish system is guided by a systems view of the world, rooted in a collaborative learning paradigm, and committed to continual collective adaption and change.

In a more recent publication, Sahlberg (2018) explained that most of Finland's theories, models, and ideas were originally formed by American educators and scholars, including Gardner's (2006) multiple intelligences, Dewey's (1963) progressive education, Johnson and Johnson (2018) and Kagan's (2007) cooperative learning, and Showers and Joyce's (1996) idea of peer coaching. Sahlberg offered lessons from trends that contrast the Finnish system, including a need for more play and regular physical exercise; a need to shift away from reliance on big data, which won't fix education, to small data, which can be far more effective in achieving big changes; and a need to enhance equity. In addition, he debunked common myths about the Finnish system that have led some systems astray, including the most recent myth reported in a British newspaper that Finland was getting rid of certain school subjects (Sahlberg, 2018). Instead, Sahlberg clarified, Finland added one period of problem-based multi-disciplinary learning to the curricula for all students age 7 through 16. He recommended that all systems "keep the focus on student needs, not international test rankings" (Sahlberg, 2018, p. 66).

Singapore. In 2009, Singapore participated in the OECD's international testing for PISA and placed among the top nations in the world. The same occurred in 2012 and 2015. As with Finland, the world wanted to know what could be learned from educational change in Singapore. Ng (2017), an educational leader in Singapore, provided an insider's look into Singapore's educational change principles in the publication *Learning from Singapore: The Power of Paradoxes*.

Ng (2017) described Singapore's system of education as one that is

undergoing change from an old paradigm to a new one, where two contrasting states exist at the same time. There are examples of activities that illustrate the essence of the new paradigm but the old one is still dominant . . . One has to embrace multiple layers of realities, manifested in seemingly contradictory pictures and accounts in order to appreciate more completely the subtleties of change. (p. 13)

Ng then laid out four paradoxes that juxtaposed the new and old paradigms: timely change and timeless constants; compassionate meritocracy; centralized decentralization; and teach less, learn more. Each paradox is deeply tied to the history of the nation and dreams for the future.

Timely change and timeless constants refers to Singapore’s philosophy of change in a country where “some things keep on changing and some things just don’t change” (Ng, 2017, p. 15). Singapore built itself into a thriving nation over its history of drastic change, but the country is acutely aware that what works today will not necessarily work in the future: “Instead of examination results, Singapore is aiming for quality education that can equip young people with knowledge, skills, and values for the future” (Ng, 2017, p. 15). A compassionate meritocracy is Singapore’s effort to address issues of equity within a culture that fiercely values merit. The compassionate side recognizes that not all will end up at the top, and thus the system makes an effort to ensure that everyone has opportunities to succeed (Ng, 2017). Centralized decentralization refers to centralization at the system level to achieve synergy but “decentraliz[ation] so schools can cater to the students it [the system] serves” (Ng, 2017, p. 16). “Teach less, learn more” is an acknowledgement that teachers have been teaching too much, and it emphasizes the need to focus on developing reflective practice with educators and decreasing the quantity of teaching in favor of quality (Ng, 2017).

While acknowledging that these paradoxes that exist, the Singaporean education system aims to achieve four dreams: every school a good school; every student an engaged student; every teacher a caring educator; every parent a supportive parent (Ng, 2017). Singapore has no failing schools, but there remains high competition among students to get into elite schools. Additionally, students generally do well on exams, but they can get stressed out and disengage. Furthermore, teachers are very good, but they have a heavy workload, and parents are engaged, but they can have overly high expectations. “The sum of these four dreams in turn composes a vision that the education system is working toward, articulated not in measurable targets but in relation to shifts in mindsets or reminders of the enduring spirit of education” (Ng, 2017, p. 16). Ng (2017), similar to Sahlberg (2018), emphasized that the Singaporean education system does not aspire to achieve good international test results, but to educate young people well.

Singapore’s story is unique in that the system is consciously and explicitly operating within both the traditional hierarchal paradigm and the collective learning paradigm while continuing to work to shift the national mindset. It highlights that the ideal types of change paradigms are not a continuum.

Bringing change paradigms and theories of change-in-action to light. Kuhn (1996) asserted that during a scientific revolution, adherents to a new paradigm approach inquiry in a non-cumulative way based less on the past and more on future promise. How then are theories of change-in-action and related emerging paradigms shifts addressed in discussion and debate within the educational change research literature?

Academic writing is a conversation with the field. The field of large-scale educational change is global and the work within is complex and ongoing. Getting ideas to those with whom one is in conversation within a timely manner requires breaking down barriers to access. There has been a notable shift in the field away from the limiting—and for some, difficult to access—format of journal articles and toward books, targeted edited volumes, briefs, and purpose-driven papers.

Books. Books are arguably the primary source of communication within the large-scale educational change field, particularly by intellectual leaders at the system level. The Routledge Leading Change series is one example of a recent and growing compilation of international perspectives that address contemporary, revolutionary, big-picture ideas that are pushing the field forward.

Often, books are composed in a case study style and address a single system case, and they are frequently authored by those who were directly involved in the change process. Ng's (2017) review of Singapore's change process and Sahlberg's (2011, 2015) accounts of Finland are two such examples that provide detailed accounts of the case and both the change paradigms and theories of change-in-action. Fullan's (2010, 2011b) numerous accounts of the educational reform journey in Ontario provided regular updates to the field about new insights gained along the change journey in a timely and easy to digest manner, which allowed those working within and looking into the system to see the bigger picture in almost real time.

A major advantage of the book format is that it provides the space to holistically explore big ideas and dig deeper into the system dynamics, paradigms, and theories of

change in a thorough and engaging manner. For these reasons, books have a greater potential to excite, inspire, and engage their audience, leading them to take action.

Edited volumes. Edited volumes are a common way to combine multiple differing perspectives on a curated topic. Hargreaves et al. (2010) edited the classic two-part volume published by Springer entitled *Second International Handbook on Educational Change*, whose target audience was academics. The first section of the first volume is entitled “Theories of Change,” and it is a compilation of perspectives on the topic written by notable leaders in the field. Although this collection was helpful for those in academia, the prohibitive cost and limited access prevented it from being widely distributed to those in the field.

In contrast, *Change Wars*, edited by Hargreaves and Fullan (2009a), presented a collection of theories of change-in-action written for a broader audience of educational change practitioners. Much more easily accessible in terms of writing style, *Change Wars* mirrored the trend of bringing debates about theories of change-in-action to members of the field.

Briefs and papers. New insights about theories of change-in-action and change paradigms are being presented in short, timely, accessible, and actionable pieces directed at specific audiences (e.g., policymakers, teachers, principals, district leaders). These pieces of writing always address what one can do right now. “Choosing the Wrong Drivers for Whole System Reform,” for example, is a free, short, easily accessible online seminar paper written by Fullan (2011a) for the Center for Education Excellence in Australia. This paper was specifically written for policymakers in order to challenge the

change paradigms that guide theories of change-in-action and some of the most common education policy directions while offering a better alternative from the newly emerging paradigm.

Journals. Journals have an important place in academia, including in the field of educational change. There are a handful of journals specifically dedicated to educational change, and there are many more associated with the field. In the past, journals were likely the most common place where scientific revolution debates took place and were resolved. Perhaps in some fields they still are. However, from my own perspective within this field, it appears that journals are spaces for academic conversations about normal science, while the thinking that drives scientific revolution spills over into the more public space of books. As such, the topics of articles in educational change journals focus heavily on understanding parts of the system—albeit important parts, such as professional collaboration, professional capital, and community—rather than broad, overarching global trends and theories. In other words, when articles are published in journals, they tend to cover a condensed version of the broader conversation happening in research-based books.

To understand systems thinking, the paradigm shift, and theories of change-in-action, it is necessary to find the appropriate research, which for the purposes of this study was largely in books published by thought leaders in the field.

Review of Methodological Literature

There is a common assumption that all social science research approaches exist on a continuum, with quantitative at one end, qualitative at the other, and mixed methods in

the middle (Creswell, 2014). However, some argue that this conception is too simplistic to represent all available research approaches (Yin, 2009, 2018). In this section, I briefly address the debate about the incommensurability of qualitative and quantitative methodologies based on their associated paradigms and argue that educational change research operates implicitly from an alternative pragmatic approach, which is neither qualitative or quantitative (Morgan, 2007). I provide a brief look at Soft Systems Methodology (SSM) as a pragmatic action-based research approach used within the field of systems thinking and discuss my rationale for rejecting this method in favor of the pragmatic case study research approach described by Yin (2009).

Research paradigms address how a researcher's worldview influences their choice of research paradigms and methodologies. An ongoing debate about the incommensurability of qualitative and quantitative approaches based primarily on ontological beliefs, or beliefs about the nature of reality, led mixed-methods researcher Morgan (2007) to compose an article suggesting an alternative way to view research choices. Morgan (2007) proposed that, rather than considering ontology the dominant organizing concept as Guba and Lincoln (1981) suggested, a researcher may choose to focus on the relationships between epistemology, or how one comes to know, and

Table 5 contrasts this pragmatic worldview approach to research with traditional qualitative and quantitative approaches. According to Morgan (2007), the pragmatic approach relies on abductive reasoning—or moving back and forth between inductive thinking and deductive thinking (theory to practice and practice to theory)—as an iterative and recursive process. This approach is common within action-based research in

the field of educational change. Morgan described this approach to research as being intersubjective, “asserting that there is both a single ‘real’ world, and that all individuals have their own unique interpretations of that world” (p. 72). The assertion of intersubjectivity particularly lends itself to educational change research as the field continues to explore the success of various change paradigms in bringing about large-scale educational improvement. The idea of transferability attempts to transcend the debate that knowledge is either context-dependent or generalizable by instead looking at the extent to which knowledge is context-specific or transferrable (in other words, the extent to which knowledge can be applied to other settings; Morgan, 2007). This can also apply to research in the educational change field. Fullan et al. (2018) described their current work as “informed practice chasing theory for the betterment of both” (p. xv).

Table 5

Pragmatic Alternative to Key Issues in Social Science Research Methodology

	Qualitative Approach	Quantitative Approach	Pragmatic Approach
Connection of Theory and Data	Induction	Deduction	Abduction
Relationship to Research Process	Subjectivity	Objectivity	Intersubjectivity
Inference from Data	Context	Generality	Transferability

Source: Morgan (2007, p. 71).

A review of educational change journals and research publications clearly reveals that there has been little or no attempt to define, describe, or claim any single allegiance. Instead, there appears to be a preference for no preference regarding methodological approaches. According to Creswell’s (2014) definition of pragmatic approaches to research, the absence of a commitment to “any one system of philosophy” (p. 11) would

align educational change research with the pragmatic paradigm. As Morgan (2007) stated, “It is not the abstract pursuit of knowledge through ‘inquiry’ that is central to a pragmatic approach, but rather the attempt to gain knowledge in the pursuit of desired ends” (p. 70).

The pragmatic approach to research is commonly associated with mixed-methods research designs. However, the alternative presented by Morgan (2007) enables application of methods beyond traditional mixed-method approaches. For example, the pragmatic approach and its association with abduction, inter-subjectivity, and transferability lends itself to many types of action research and to Yin’s (2018) case study research design and methods.

Below, I describe the methods of inquiry considered for this study, which focuses on revealing a theory of change-in-action and the underlying paradigm. I then justify my selection of case study research as described by Yin (2009, 2018).

SSM. SSM (Soft Systems Methodology) is an action-oriented approach developed over a 30-year period by Checkland and colleagues at Lancaster University, England (Checkland & Scholes, 1993). Checkland and Poulter (2006) described SSM as an “organized way of tackling perceived problematical (social) situations. It organizes thinking about such situations so that action to bring about improvement can be taken” (p. xv). SSM acknowledges that real-life problematic situations are not static and have multiple interacting, often clashing, worldviews, and it allows people to work purposefully, with intention, to bring about improvement.

The cycle of learning for action used in SSM is an excellent match for those with a systems view of the world and those who favor a pragmatic approach to inquiry for action in order to improve large-scale education systems. As a research approach, SSM is concerned with analyzing how multiple worldviews work together to create a purposeful set of collective actions for improvement.

However, there are some challenges associated with SSM. For instance, while it is potentially well-suited for educational research, it is virtually unknown within educational research circles. Also, the requirements of dissertations and action research are often at odds, as described by Herr and Anderson (2015) in *The Action Research Dissertation: A Guide for Students and Faculty*.

The factor that ultimately caused me to steer away from SSM as a methodology was my position as a researcher. As with all action research, SSM places the researcher within the research context as a participant with some control or influence over behavioral events. In an SSM approach, this often means that the researcher asks participants questions, and it may facilitate conversations that change the process being studied. In contrast to SSM's participatory action research, Yin's (2009) case study research and methods are best used when the researcher is investigating contemporary events and has no control over behavioral events.

Case study research. Case study research, according to Yin (2009, 2018), is widely used in the field of education research. Yin (2012) strongly argued that case study research is a unique method with its own design, data collection, analytic, presentation, and reporting procedures. However, Yin (2012) also acknowledged that other scholars

conducting surveys of methods inaccurately generalize case studies as a subset of qualitative research (Creswell, 2014; Stake, 1995) or as quasi-experimental research.

Case studies have a wide range of variations and applications that allow it to include single or multiple cases and quantitative and/or qualitative data; they may be used to explain, illustrate, describe, or enlighten; and they may be conducted and reported with many different motives, from “the simple presentation of individual cases to the desire to arrive at broad generalizations” (Yin, 2009, p. 20). Yin (2009) is clear that case studies as research methods are not the same as teaching cases, which are often referred to as “the case study method.”

Case study research is best used when one aims to get an up-close, in-depth look at a phenomenon that will lead to new learning. Yin (2009) described the case study as one of the most challenging of all social science endeavors. In a later work, he offered a short yet encompassing definition of case study: “An empirical inquiry about a contemporary phenomenon (e.g., a ‘case’), set with in its real-world context—especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2012, p. 4). He went on to describe that “case study research assumes that examining the context and other complex conditions related to the case being study are integral to understanding the case” (Yin, 2012, p. 4). He also provided a second part to the shorter definition of case study research:

[case study research] copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as a result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of

theoretical proposition to guide the data collection and analysis. (Yin, 2009, p. 18)

Summary

This literature review draws attention to a shifting paradigm in the field of large-scale system-wide educational change. A push to reveal theories of change-in-action continues to open the conversation (and debates) about how to approach change within complex education systems while also creating opportunities to understand what, how, and why successful change efforts succeeded. Adherents to an emerging systems view of educational change continue to present and argue for this new approach, as it appears to be more successful than others in addressing persistent dilemmas and barriers to educational change. Through the lens of the systems paradigm of change, recent educational change efforts are being reinterpreted, and new change efforts are being compared to the most successful systems, which center around and prioritize collective learning. Paradigms of thought or worldviews are surfacing as common threads between successful system changes, even those in widely varying contexts and with diverse approaches.

Chapter 3: Methods

Addiction is finding a quick and dirty solution to the symptom of the problem, which prevents or distracts one from the harder and longer-term task of solving the real problem. (Meadows, 2008, p. 133)

Introduction

The purpose of this case study is to reveal and clearly describe the OEIB's theory of change-in-action, which guided Oregon's large-scale education system change efforts between 2011 and 2015, and to compare it to other change paradigms, including those adopted by some of the best systems in the world. A theory of change-in-action is the thread of logic linking *how* and *why* a change effort is implemented and impacted by individual and collective worldviews. Uncovering a theory of change-in-action has the potential to unlock new ways of conceiving of common dilemmas and identifying new policies and connected strategies that arise from a successful source or change paradigm.

This study is guided by the following research questions:

1. What was the OEIB's theory of change-in-action?
2. How did the OEIB's theory of change-in-action align with change paradigms, including those guiding the best education systems in the world?

The following sections describe the selection, design, collection, analysis, and synthesis of this case study along with the iterative nature of case study research and the methodological shifts that took place as a result of learning while doing the study.

Case Study Design

This study's design and methods were guided by the case study research design described by Yin (2009) in *Case Study Research: Design and Methods, 4th ed.*; the companion book, *Applications of Case Study Research, 3rd ed.* (Yin, 2012); and the updated version, *Case Study Research and Applications: Design and Methods, 6th ed.* (Yin, 2018).

Iteration. Yin (2009, 2018) emphasized the iterative nature of case study research, including the necessary actions that must be taken throughout the study as new and important insights are discovered. The arrows in Figure 3 help to illustrate this iterative process. Yin (2009) articulated that emerging insights may or may not include redefining case boundaries, honing research questions, repurposing theoretical propositions, refining protocols, entertaining expected or unexpected rival explanations, and so on. Yin (2009) explicitly stated that as one begins a case study, one must remain flexible and expect changes to insights and perspectives, as the initial design only serves as a blueprint. This case study was no exception. While describing the methods below, I highlight insights that led to key shifts in my approach.

Selection. According to Yin (2018), one often chooses to perform a case study when (a) the form of the research questions is “how” or “why,” (b) the research focuses on contemporary events, and (c) the research does not require the researcher to control behavioral events.

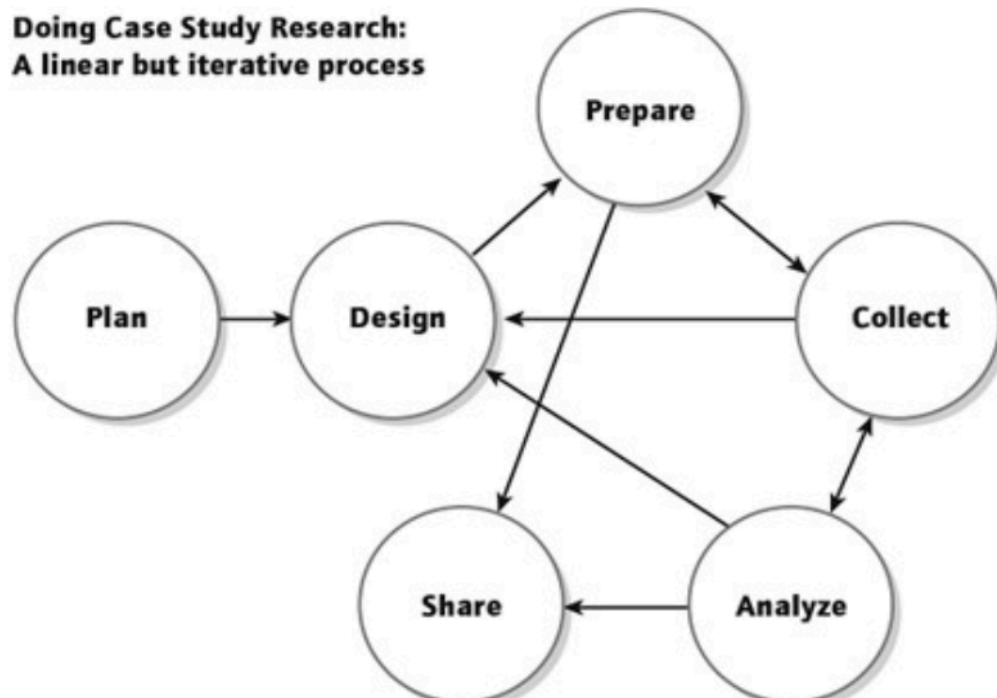


Figure 3. An organized model for case study research. Source: Yin (2009, p. 5).

The “what” question was intentionally selected to guide this case study research. Uncovering a theory of change-in-action implicitly addresses “how” and “why” questions due to the definition of a theory of change-in-action and its ability to link the “how” and “why” of a change effort. The “what” questions used in this study also help to clarify that the research is a descriptive case study (as opposed to an exploratory, explanatory, or evaluative one; Yin, 2009, 2012). The focus on *describing* the OEIB’s theory of change-in-action, rather than explaining the causes and effects, aligns with the aim of this research: to uncover and make explicit the tacit assumptions held by the OEIB that informed the worldviews of its membership, which in turn informed the organizing principles that drove policy and connected strategic choices.

Shortly after this research was proposed, the OEIB was disbanded. However, the staff and agency supporting the board continued on, as did many of the OEIB's reform efforts, including a large number of the guiding policies and related strategies. As such, the work of the OEIB is considered to be connected to the large-scale reform efforts of Oregon at the time the research was conducted.

The researcher had no behavioral control over the OEIB or its members while the board existed or during data collection (see the section "role of the researcher" for a more detailed description of the researcher's position).

Design. Yin (2009) presented four basic case designs that most case studies follow (see Figure 4). Of these four designs, this study employs a holistic single-case design approach (with a single unit of analysis). Yin (2018) offered a number of rationales for selecting a single-case study, including critical, unusual, common, revelatory, and longitudinal reasons. This descriptive, holistic, single-case design was originally selected as a common example of a large-scale change effort. However, over time, two other benefits of the single-case design emerged. First, it can serve as a critical case in the sense that it enables the proposed theoretical propositions, including the utility of change paradigms, to undergo a critical test. Second, there is a longitudinal component, as the same single case was viewed over four different periods of time, which allowed the researcher to describe how certain conditions and underlying processes changed over time.

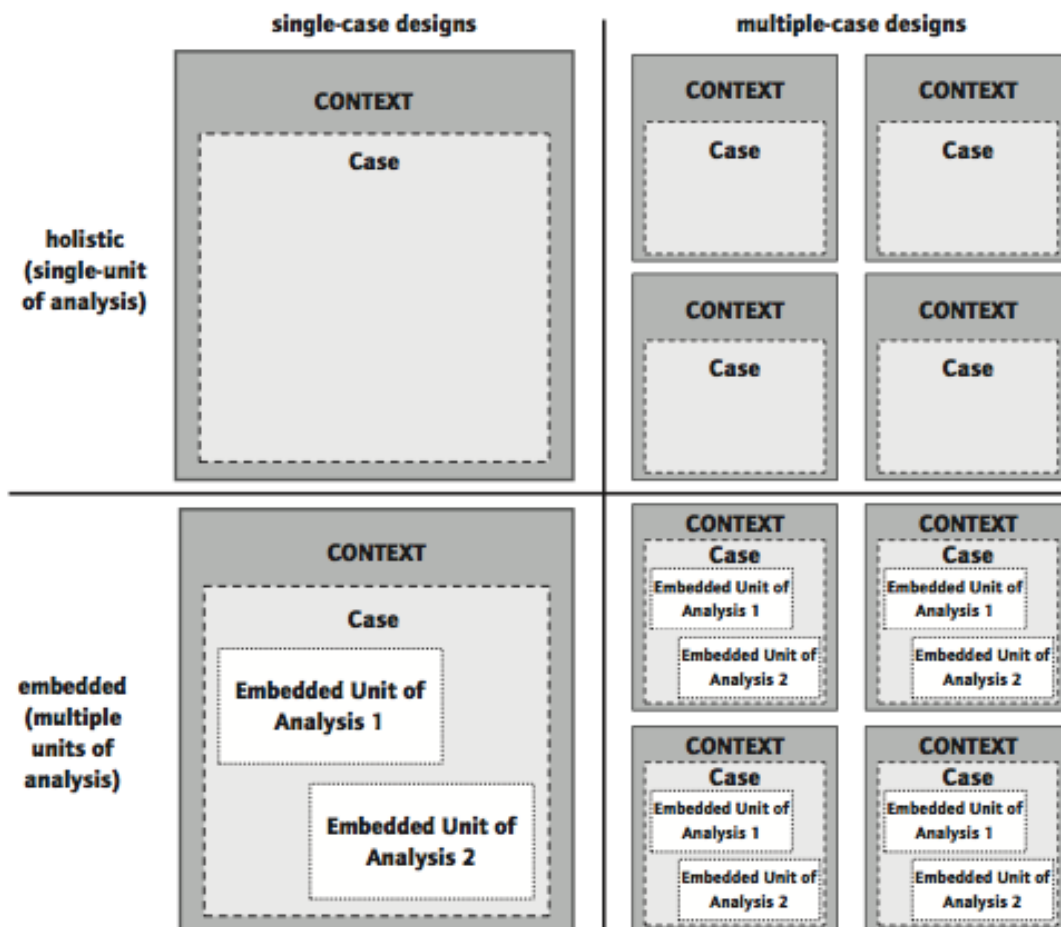


Figure 4. Basic types of case designs. Source: Yin (2009, p. 46).

According to Yin (2018), there are five components of a case study research design that are important: the research questions, theoretical propositions, case definition, link between the data and propositions, and criteria for interpreting the findings. Each of these components are described below.

Questions. The questions for this study were selected based on the logic described in the previous section. They are as follows:

1. What was the OEIB's theory of change-in-action?
2. How did the OEIB's theory of change-in-action align with change paradigms, including those guiding the best education systems in the world?

The second question was refined over time as the utility and constraints of the change paradigms became evident. In addition, the research further differentiated between the theory of change-in-action and the paradigms driving change. The theory of change-in-action is a holistic representation of what is actually happening in a change effort, and the change paradigms, represented by metaphors, are somewhat hierarchical representations of worldviews that are based on research into real-life examples and help the researcher to see likely outcomes and alternatives to theories of change-in-action.

Theoretical propositions. Theoretical propositions define the boundaries of the case (i.e., what is and is not included as the unit of analysis and context) and perspectives that inform the design of this case study. Yin (2009) stated, "Theoretical propositions should by no means be considered with the formality of grand theory in social science, but mainly need to suggest a simple set of relationships" (p. 9) about why things occur. Theoretical propositions are something that differentiates case studies and other research methods. The following are the theoretical propositions for this study:

1. All educational change efforts have a theory of change-in-action, some of which are articulated but most of which are implicit.
2. A theory of change-in-action is informed by worldviews or paradigms.
3. Illuminating theories of change-in-action enables critical review of policies and strategies in comparison to intentions.
4. Identification and articulation of theories of change-in-action are aided by using change paradigms as a synthetic lens.

5. Comparison of theories of change-in-action and change paradigms has the potential to help those engaged in change more readily see alternatives.

The case. The case examined in this study is the OEIB's theory of change-in-action. The OEIB's theory of change-in-action refers only to the OEIB's *collective* change actions, rather than any one member's individual change logic, as it is the collective theory of change-in-action that drives strategy and policy decisions. In other words, it is assumed that individual board members each have their own (and likely different) worldviews. The unit of analysis in this case is the collective actions of the OEIB. This was expanded to include both *collective direct actions* (e.g., motions, resolutions, and reports of the OEIB) and *collective indirect actions* (e.g., recommended legislation and budgets). Indirect actions were added because the board was reliant upon the legislature and/or governor's office to set budgets, pass laws, apply for federal grants, and so on, despite having been designed, approved, and/or recommended by the OEIB. This created a situation in which context and actions were inseparable.

The time boundaries of the case were intended to encompass the OEIB's inception in 2011 to the resignation of the governor in 2015. Through iterative data analysis, it became clear that the contextual timeframe immediately prior to the inception of the OEIB could not be separated from the actions of the board. The time boundary was expanded to include the governor's inauguration to his resignation, which enabled key policy and strategy decisions that impacted collective OEIB actions to be captured. This was necessary to identify the OEIB's theory of change-in-action.

The evidentiary sources for this case study included a wide variety of accessible public documentary sources. The documents, including meeting agendas, minutes,

reports, budgets, legislation, presentations, letters, directives, speeches, plans, and graphics, are extensive, varied and detailed. Yin (2018) noted that there are both advantages and potential drawbacks of documentary evidence. The benefits include the ability to review documents repeatedly, the fact that they are unobtrusive (i.e., are not created as a result of the study), their specificity (i.e., they provide names, dates, and details), and their broadness (i.e., they can cover a long span of time over many dates and settings (Yin, 2018). However, possible drawbacks include difficulties related to retrievability, accessibility, and potential bias (Yin, 2018).

As a public board, the OEIB was required to hold open meetings and provide the public with all the documentation and reports associated with, or discussed in, these meetings. The OEIB compiled an extensive website to provide easy and immediate access to the substantial amount of available documentation. While narrowing evidentiary sources to publicly available documentation is somewhat unconventional for a case study, the purpose and questions of this study required that the data be representative of the collective OEIB (rather than the view of any one individual) while identifying the theory of change-*in-action* (as opposed to only the *espoused* theory of change). Given the volume of evidence, it was possible to perform triangulation.

Case study review by OEIB members, similar to member checks, were initially considered, but in addition to concerns regarding response bias and inaccuracy due to poor recall, it was determined that the unit of analysis (i.e., the OEIB's collective actions) could not be collected at the individual level, rendering this data collection activity extraneous. Other common data sources for case studies, including archival records,

participant observations, and physical artifacts (Yin, 2018), would not be effective given the chosen unit of analysis. While I participated in direct observation of OEIB open meetings, this data collection took place outside the timeframe of this study and thus was not included.

Initial data collection involved building a replica case study database of all OEIB files in a secure personal location on the cloud to ensure consistent access to the key study data during the analysis and beyond. The document boundaries (i.e., what was included and not included in the study) changed when analysis began, as further described in the section entitled “data collection, analysis, and synthesis.”

Linking data to propositions. According to Yin (2018), linking data to propositions involves having an initial plan for data analysis. In the study, the original plan for data analysis was to use paradigms of change as an analytic lens to examine each type of documentation. By using a systematic process that was iterative, recursive, and exhaustive, it was anticipated that patterns and trends would surface in the data and point toward a theory of change-in-action. While this method of analysis seemed promising during the pilot study, it did not bring about the anticipated results. According to Yin, this is not an uncommon initial outcome. He recommended “playing with the data and searching for promising patterns, insights, and concepts [while defining] priorities for what to analyze and why” (p. 164). The data analysis that resulted from continuously “playing” with the data is further described in the section entitled “data collection, analysis, and synthesis.”

Criteria for interpreting the strength of a case study's findings. The criteria for interpreting the strength of a case study's findings serve as an initial plan to address alternative explanations for the findings. These initial plans were linked to use of the change paradigms as analytic lenses, and a fifth "open" option was included for when documented OEIB actions did not fall into one of the four paradigms during data sorting. Alternative explanations were to be addressed by using the four change paradigms in a synthetic manner (i.e., the identified theory of change-in-action was compared to all four change paradigms in order to select a dominant one and to rule the others out).

Validity and reliability. Yin (2018) suggested four tests to determine the validity and reliability of a case study design. Construct validity is strengthened through the use of multiple sources of evidence and maintenance of a chain of evidence (Yin, 2018). To ensure construct validity, this study uses a variety of documentary evidence to support its claims while maintaining the database, and thus the chain of evidence. Internal validity is mainly a concern in explanatory case studies, but it relates to the process of making inferences in general (Yin, 2018). This study uses tactics similar to explanation-building, time series analysis, and logic modeling to increase internal validity. Use of theory in the form of theoretical propositions in single-case studies strengthens external validity (Yin, 2018). In this study, a case study database was developed, and a chain of evidence was maintained to increase reliability. Yin stated that "case studies like experiments are generalizable to theoretical proposition and not to populations or universes, [the] goal [is to] to expand and generalize theories" (p. 20) such as those stated in theoretical propositions.

Role of the researcher. I came to this study with an array of pre-conceived notions and inherent biases regarding the nature of work about large-scale educational change, from knowledge of many of the board and staff members engaged in the process, the functioning of public board meetings, the media-led opinions about the OEIB's efforts, and the opinions of some of those in the field who were recipients of ongoing changes. In order to address these biases, I focused the attention on the unit of analysis which required triangulation of publicly documented evidence of collective OEIB actions when making claims.

My interest in the topic, processes, and outcomes of large-scale change developed through my experiences in Ontario, Canada. When I entered the field of education in 2002–2003, change leader Fullan was leaving the Ontario Institute for Studies in Education at the University of Toronto, where I was studying, and beginning his role as an education advisor to the premier of the province. His engagement with the field and prolific writing had a notable influence on my thinking. Also, upon reflection, the dominant change paradigm in Ontario had a strong bias toward collective learning. It was not until I relocated to the U.S. state of Oregon that I began to understand the relative uniqueness of the paradigm that had shaped my own understanding of the field of education, educational change, and the world. Fullan and other contemporary pioneers in the field of educational change continue to influence and bias the way I think about and engage with the field.

Through my studies and engagement with educational change in Oregon, I have come to know the members and staff of the OEIB. The chair of this dissertation

committee and my advisor was a member of the board, and I was able to meet and engage with staff and members of the OEIB Equity and Partnership subcommittee (on which my advisor sat) through an internship with the Oregon Advocacy Commission (in which another member of my committee was deeply involved). I was able to attend a significant number of the public OEIB meetings, which allowed me to gain a first-hand understanding of the discourse in which the OEIB was engaged. Through these experiences, I developed a high degree of respect for all people involved in the OEIB and its work. I believe that every individual was genuinely engaged in this work for the betterment of students and the state.

Having a front row seat at meetings prior to conducting this research allowed me to gain some perspective to informally assess the integrity of the OEIB's print documentation, including agendas and minutes, as well as third-party reports, such as those of the news media, in relation to my first-hand accounts. While the OEIB documentation format shifted with the board's leadership shifts. Until the end of Dr. Golden's interim role as chief education officer (CEdO), the minutes and accompanying documents were highly detailed and often included verbatim quotations. Once Dr. Golden became CEdO, the minutes and documentation became more formal and focused largely on action items, but they were still effective in capturing the OEIB's collective actions. Third-party reports, including those of the news media and local agencies, were subjective more often than not, as they did not necessarily reflect the OEIB's collective action within public meetings. At times they appeared to be politically motivated or altered to make a news story seem more interesting.

Time allowed me to gain distance from the OEIB's actions before reviewing documents. Distanced provided perspective that may possibly have been more difficult to achieve when viewing the passionate work of the members of the board in real-time. Awareness of my experiences and biases helped me to maintain an intersubjective lens during the document review. Thus, my role was that of an informed document reviewer.

Data Collection, Analysis, and Synthesis

Collection. Upon receiving exempt status from the Institutional Review Board, copies of all the pre-existing public data related to the OEIB were downloaded from the OEIB's extensive online archives and screenshots were taken of various landing pages on the site. Over a period of two weeks, a case study database was created within a Dropbox application folder that, as much as possible, mirrored the layout of the website. No decisions on what to include or exclude were made at this point; rather, the aim was to ensure continuous access to a full and stable set of data throughout the study and beyond. Appendix B lists a full copy of all the data that was downloaded and stored in the database, including original file names. Appendix A contains a list of the meetings the data for this study was drawn from. At the time of completion of this dissertation all publicly available documentation had been removed from the world wide web and must be requested from Oregon's Chief Education Office or the state's coordinating education agency.

Analysis. A case study is a highly iterative process, as noted by Yin (2018) and shown in Figure 3. Approaching the large volume of data that was collected was daunting; far more data were collected than was necessary to identify the OEIB's theory

of change-in-action. During the first round of analysis, it was necessary to separate usable data focused on collective action from other data. This required reading and annotating each document. It became clear through this process that focusing on the full minutes of OEIB meetings was the most efficient way to identify relevant collective actions of the OEIB and supporting documentation for those actions, as the minutes had been reviewed and were confirmed to be accurate at subsequent meetings by the full OEIB.

The first attempts to holistically code the themes of OEIB collective actions for further analysis generated a series of relevant preliminary themes: CEEdO, achievement compacts, budget, data system, communications, organization, Early Learning Council (ELC), Higher Education Coordinating Commission (HECC), Youth Development Council (YDC), reports, legislation, and other. A separate folder was created for each theme, and dated information spanning from data concerning the confirmation of the OEIB to the last recorded meeting minutes was compiled.

According to the initial plan for analysis, the matrix of theory of change paradigms was then used as an analytic lens to code each of the OEIB's actions under the relevant paradigm. This strategy had been piloted and deemed to be workable when it was focused on a single themed action over a short period of time. However, when working with the entirety of the data across time, what emerged was an unwieldy Excel matrix that was 8 feet tall and 12 feet wide when printed and that clearly was not aligned with any one paradigm of change. In addition, it was noted that even within one theme, the collective actions of the OEIB often wavered over time. For example, early OEIB

achievement compact actions fit more with a negotiated implementation paradigm, Crew-era achievement compact actions fit more with a traditional hierarchical approach, and Golden-era achievement compact actions aligned most with the standardized market paradigm. This led me to realize that using a reductionist strategy to determine a dominant paradigm does not work. In retrospect, based on the fact that this research was approached with a systems thinking framework, it seems obvious that a reductionist strategy would not work; the whole is more than the sum of its parts. Only a holistic view of the collective OEIB theory of change-in-action could be used with the matrix of ideal types of change paradigms. Although it did not work, one major benefit of this first effort was that it allowed me to become intimate with the data; in order to achieve a holistic perspective based on systems thinking, one needs to have intimate knowledge of the details of the case (in this case, details about reform efforts).

The next attempt at analysis resulted in a breakthrough. Data analysis was conducted at three key time frames, which served as turning points and were characterized by leadership changes: early OEIB, Crew OEIB, and Golden OEIB. This analysis was conducted in a similar manner to a time series analysis. Collective OEIB actions within each era were holistically coded and themed. At times, the meeting documentation referenced reasons for an action that lay outside the initially determined (bounded) time frame of the case study. By following the data trail, it was determined that the pre-OEIB contextual timeframe could not be excluded.

The analysis resulted in a detailed account of the OEIB's collective actions across time. The systematic detailed analysis allowed for synthesis of the data from which the

OEIB's collective theory of change-in-action could be extrapolated. Fullan (2001) noted that it is often necessary "to go slow in order to go fast" (p. 52) whereby I experienced the slowness in gaining knowledge of the actions of the OEIB, and that knowledge allowed me to go fast in understanding the theory of change-in-action and connected changed paradigm.

Synthesis. In general, synthesis refers to the combination of two or more things to create something new. Systems thinker Ackoff (1999) explained the dynamic relationship between analysis and synthesis:

These two approaches [analysis and synthesis] should not (but often do) yield contradictory or conflicting results: they are complementary. Development of this complementary is a major task of systems thinking. Analysis focuses on structure; it reveals how things work. Synthesis focuses on function; it reveals why things operate as they do. Therefore, analysis yields knowledge; synthesis yields understanding. The former enables us to describe; the latter, to explain. (p. 18)

After the data analysis (which offered an understanding of the structure and parts of the system), a version of logic modeling was used in an iterative and exhaustive fashion for synthesis in order to represent the complexity of the system interactions and the driving levers. Combined, these interactions and levers represented the effects of the overarching reform system and illuminated the theory of change-in-action adopted in the reform.

This work explains the role and function of the OEIB's actions in relation to the overarching theory of change-in-action, answering research question 1 (What was the OEIB's theory of change-in-action?). The overarching theory was then compared to the matrix of ideal types of change paradigms to answer research question 2 (How did the OEIB's theory of change-in-action align with change paradigms, including those guiding

the best education systems in the world?). Comparing the theory of change-in-action to different ideal types enabled consideration of alternative theories.

Summary

This case study's design and methods relied heavily on Yin's (2012, 2018) framework and process. In some areas, the design and methods veered from Yin's typical examples, and thus at times, I have referred to this work as "case-study-style research." However, Yin (2012) was the first to point out there are many different examples and applications of case study research, and what is important is following a clear path while adhering to the key principles of the method. I have tried to be true to both the path and principles of case study research in this work.

Chapter 4: Results

The . . . goal of all theory is to make . . . basic elements as simple and as few as possible without having to surrender the adequate representation of . . . experience. (Einstein cited in Ratcliffe, 2016, para. 13)

Introduction

This study seeks to illuminate the OEIB’s theory of change-in-action and compare it to ideal types of change paradigms, including those of the most successful global educational change efforts in the world. A theory of change-in-action is the logic linking the “why” (i.e., worldview or change paradigm) to the “how” (i.e., strategies and policies) regarding the enactment of change. Theories of change-in-action tend to be guided by an overarching (and often hidden) paradigm that guides actions and outcomes and can be elusive. Illuminating a theory of change-in-action and its associated paradigm offers opportunities for discussing and debating the merits and pitfalls of a change strategy and enables contemplation of alternative ways forward. This study seeks to answer the following questions:

1. What was the OEIB’s theory of change-in-action?
2. How does the OEIB’s theory of change-in-action align with change paradigms, including those guiding the best education systems in the world?

This work, which makes the OEIB’s collective theory of change-in-action explicit and compare it to ideal types of change paradigms, aims to help shift large-scale reform efforts toward a reform paradigm that may be more successful in addressing current educational and societal challenges. The argument presented here is grounded in a

systems thinking worldview, which necessitates looking at the whole system and the interaction of different parts while clarifying mental models of action in order to better identify actions for change that are likely to be more successful than others. This study is focused on what the OEIB actually did (i.e., the theory of change-in-action) rather than what it intended to do (i.e., theory alone).

To identify a theory of change-in-action, one must reveal both why a change is being pursued and how change is being approached. Thus, in order to determine the OEIB's theory of change-in-action, it was necessary to first identify, analyze, and articulate what the OEIB did across time (i.e., actions taken) and why certain strategies were selected. Holistic coding and thematic analysis illuminated how the OEIB's actions (i.e., policies and strategies) shifted across time in relation to changes in the OEIB's leadership. The analysis was coupled with synthesis of the data to obtain a holistic picture of the OEIB's theory of change-in-action. Table 6 presents an overview of the analysis of actions through time (horizontal axis, divided into pre-OEIB, early OEIB, Crew OEIB and Golden OEIB) and the synthesis of actions through time (vertical axis), providing a "road map" for the reader that helps to illuminate the OEIB's theory of change-in-action. The data synthesis reveals the OEIB's underlying output goal, the outcome-focused nexus (comprised of outcomes, budget, achievement compacts and data system), the impact of external influences, and it highlights the key plans and related actions (including the strategic plan) that involve organizational restructuring and equity actions. Together, the analysis and synthesis of OEIB actions answer the first research question: What was the OEIB's theory of change-in-action?

Table 6

Overview of Data Analysis and Synthesis

	Pre-OEIB Jan 1, 2011– Nov 18, 2011	Early OEIB Nov 18, 2011– July 1, 2012	Crew OEIB July 1, 2012– July 1, 2013	Golden OEIB July 1, 2013– Jan 15, 2015	
Themes	<i>Plan, Structure, Promote</i>	<i>Adopt, Prepare, Implement Early</i>	<i>Account Invest, Execute</i>	<i>Refocus, Communicate. Distribute</i>	
Output	Purpose of Education (Why)	Workforce development 40-40-20			
Outcome Focused Nexus	Outcomes	Legislated higher education target 40-40-20	Selected initial student outcomes, AC, SLDS	Kindergarten readiness assessment Revised measurable outcomes beyond students	
	Outcome-Based Budget	Designed budget model: 2011–2013 budget, 5.7 billion; QEM, 38% gap	Governor appointed Education Funding Team for 2013–2015 biennium budget	Approved budget: 12.8% increase, funding for strategic investments; QEM, 31% gap 2015–2017 budget recommendations	
	Achievement Compacts	Setting recommended outcomes and targets with local educational authorities	OEIB approved ACs, legislated requirements in exchange for state funding	Adjusted dates for AC completion; 50% AC returned; Regional compact pilot approved	Recommendations for revision of AC
	State Longitudinal Data System (SLDS)	Legislated SLDS; initial research and work completed	Hired contractor to generate plan for SLDS future phases	---	SLDS incomplete; business case created; approved federated solution
Input	External Policy Influences	Applied for NCLB waiver & Race to the Top—Early Learning Challenge (RTT-ELC)	OEIB commits to align with NCLB waiver and RTT-ELC; RTT-ELC granted	NCLB waiver granted Implementation of external mandates	
Plan of Action	Strategic Plan Objectives	---	---	Created strategic plan; strategic investments approved Revised strategic plan; expanded outcomes; score card of outcomes	
	State-Level Organizational Restructuring	Planned budget model, outcomes, and database; establish new board, council and commission; governor serves as superintendent	Establish YDC; redesign early learning system; hire CEo; adopt “tight-loose” concept	Move ELC and YDC to ODE; expand HECC authority; Established university boards, STEM Investment Council; AL Increase coordination with affiliated agencies; reclarify role of OEIB	
	Equity Focus	Stakeholders suggest central role of equity	OEIB commits to a focus on equity	Created equity lens & adopted in strategic plan Measured equity outcomes	

Abbreviations: 40-40-20 purpose of education referring to percentage of degrees, diplomas and certificates achieved; QEM, Quality Education Model; AC, achievement compact; NCLB, No Child Left Behind; RTT–ELC, Race to the Top–Early Learning Challenge; ODE, Oregon Department of Education; CEo, Chief Education Officer; HECC, Higher Education Coordinating Commission; STEM, science, technology, education, mathematics; AL, accelerated learning

Chapter 4 concludes with a comparison of the OEIB's theory of change-in-action and the ideal types of change paradigms, including those of the most successful systems in the world, to answer the second research question: How does the OEIB's theory of change-in-action align with change paradigms, including those guiding the best education systems in the world?

Analysis

Analysis of the data across time made it easier to separate action from intention while accommodating shifts in the leadership of the OEIB—and thus the nuanced focus of the board in context. In addition, the detailed analysis across time developed a critical baseline of knowledge from which to synthesize the nuances of the board's actions and uncover the OEIB's implicit theory of change-in-action. The pre-OEIB section provides context for the OEIB's actions and covers the time period between then-Governor Kitzhaber's inauguration speech on January 10, 2011, to the Senate confirmation of the OEIB members on November 18, 2011. This period before the board was officially confirmed provides critical context for how the OEIB came to be and highlights the development of key concepts that underpinned the OEIB's work and laid the foundation for the theory of change that guided its actions. The following three periods—early OEIB (Nov. 2011–July 2012), Crew OEIB (July 2012–2013), and Golden OEIB (July 2013–Jan. 2015)—are divided based on the chief education officer or acting leader of the OEIB at the time. The early OEIB era, in which the OEIB was led by Governor

Kitzhaber, covers the first official meeting of the OEIB on November 20, 2012 to the hiring of the first CEEdO, Dr. Crew, who officially began his duties on July 1, 2012. The Crew OEIB era covers CEEdO Crew's one year tenure, which ended on July 1, 2013. The Golden OEIB era includes the actions taken between the appointment of Dr. Golden (formerly the OEIB chair designated by Governor Kitzhaber) as the interim (and then official) CEEdO and the final publicly recorded meeting of the full OEIB on January 13, 2015, just prior to the resignation of Governor Kitzhaber on February 18, 2015. Upon becoming governor, former Secretary of State Brown ceased all meetings of the full OEIB. During the 2015 legislative session, which began on February 1, 2015, Oregon S.B. 215 (2015) was passed and, as of July 27, 2015, officially abolished the OEIB. This occurred prior to the legislated sunset, which was scheduled to occur the following March.

The time-based thematic analysis was focused on the OEIB's direct actions (e.g., creating and adopting strategic plans or achievement compact rules) or indirect actions (i.e., approving legislative concepts or budgets that were then passed by the legislature). The themes identified in each time frame are accompanied by timelines and turning points. Note that related legislative actions are organized by their effective date and are included within the time frame associated with the OEIB leader during the legislative session in which the legislation was passed. Figure 5 organizes the themes by time period.



Figure 5. Themes of the OEIB's actions by time period.

Pre-OEIB: January 1, 2011–November 18, 2011. The iterative process of analyzing and synthesizing the OEIB's actions over its tenure revealed references to a number of actions taken prior to the creation and confirmation of the OEIB that played a key role in guiding the OEIB's actions. While the pre-OEIB timeframe was not initially considered for inclusion in the data analysis, this contextual information was found to be essential for understanding why the OEIB chose to enact certain strategies and policies, which in turn were essential for uncovering the OEIB's theory of change-in-action. The pre-OEIB data fit within three themes: plan, structure, and promote. Table 7 presents a timeline of this period, outlining turning points and action-related themes.

- Inauguration of Governor John Kitzhaber: Education reform as a priority
- Oregon Education Investment Team (OEIT): Initial workgroup on reform policy and strategy
- 2011 legislative session
- S.B. 909 workgroup
- No Child Left Behind (NCLB) waiver: Decision to apply

Table 7

Pre-OEIB Turning Points and Themes

Date	Turning Points and Themes	Theme
Pre-OEIB Jan 1st, 2011–Nov 18th, 2011		
01/10/2011	Governor inaugurated—education reform made a top priority	Turning Point
02/01/2022	2011 Legislative session began	Turning Point
02/11/2011	OEIT established—created policy and budget recommendations	Turning Point
06/28/2011	S.B. 909 (2011) Established OEIB; established ELC; required building of pre-K to 20 th year; SDLS	Structure
06/30/2011	Legislative session ended	Turning Point
07/20/2011	S.B. 242 (2011) Created HECC; no funding; released Universities from state agency status allowing consideration to create boards	Structure
07/26/2011	OEIT <i>Progress Report</i> —Highlighted key recommendations for OEIB	Plan
08/2011	OIET <i>Oregon Learns report</i> outlined general strategy to achieve state goals for education	Plan
08/2011	<i>LearnWorks</i> : 30 educators/community leaders over 12 days tried on reform ideas—further key recommendations offered for OEIB	Promote
08/05/2011	S.B. 552 (2011) Governor became superintendent of public instruction once term of elected superintendent ended	Structure
09/2011	Disbanded—OEIT	Turning Point
09/2011	Established—S.B. 909 workgroup made up of selected members of OEIB awaiting Senate confirmation	Turning Point
09/2011	NCLB waiver program requirements announced by Federal Government. Governor's office gathered 100+ people to decide to apply for Federal relief	Turning Point
10/04/2011	Oregon Board of Education report: <i>Recommendations to Governor</i> made following a board retreat August 16th	Promote
11/01/2011	Oregon University System Symposium: 300+ discussed vision. Later report produced <i>40/40/20 from Goal to Reality</i>	Promote
11/18/2011	OEIB Official—Members of OEIB confirmed by Senate	Turning Point
01/01/2012	S.B. 253 (2011) Revised mission of higher education to 40-40-20 by 2025: 100% of Oregonians to achieve a high school diploma or equivalent, 40% to achieve an associate degree or trade certificate; 40% to achieve a bachelor's degree or higher	Structure

Notes: Legislation organized by effective date. Additional legislation related to education passed in the 2011 legislative session not included in the timeline above included tuition waivers for foster youth, transfer of community college credits toward a bachelor's degree, opportunities for incarcerated youth, teacher federal loan forgiveness, school district collaboration grant, funding for full day Kindergarten by 2015, assessments to be proficiency-based and adoption of core teaching standards for evaluation of teachers and administrators, task force on accountable schools and removal of outdated or redundant provisions of law (Legislative Administration Committee Services, 2011).

Pre-OEIB: Turning points. The pre-OEIB era featured five key turning points that impacted the work of the OEIB.

Inauguration. Upon his inauguration, the governor laid out his priorities, including education reform. The governor’s rough plan was quickly adapted to become known as 40-40-20 by 2025—Oregon’s North Star. According to Kitzhaber (2011a), this “north star” referred to Oregon’s aspirational educational goal to ensure that 40% of Oregonians achieve a 4-year bachelor’s degree or higher, 40% achieve a 2-year associate’s degree or career certificate, and the remaining 20% achieve at least a high school diploma by the year 2025. (Note: In 2010, the starting point was 30% bachelors-18% associate’s or career certificate, 42% high school diploma as highest level of education, with 10% less than a high school diploma [OEIB, 2011b].) The governor positioned education as a means to get Oregonians back to work and suggested that moving to long-term, outcome-based budgeting (rather than spending a certain amount per pupil) would be a key strategy to address the consistent underfunding of education over the past few decades:

First, we need to know where we are going—we need a destination. And here it is . . . We should live in a state that creates family wage jobs and career pathways that lead to those jobs, and where the average per capita income exceeds the national average in every region . . .

[We must] change the focus of our political debate from cutting budgets and raising taxes to focus on growing the economy and redesigning how we deliver public services . . . Moving from a two-year budget to a ten-year budget, from current service level budget to true outcome-based budgeting, will provide a road map which can help inform us. (Kitzhaber, 2011a, para. 22-24)

OEIT. Shortly after his inauguration, the governor formed the OEIT with Executive Order 11-02 to help frame and initiate the reform strategy. Within this

executive order, the governor highlighted what he saw as the challenges of the Oregon education system, citing governance, budget, and data collection structures as key drivers of reform:

Budget decisions throughout public education are opaque and disconnected; incentives created through the way Oregon distributes dollars to schools discourages practices educators want to support; data collection is fragmented and non-uniform; governance of our educational institutions is built around silos making consistency almost impossible. (Office of the Governor, 2011, para. 5)

The OEIT was a temporary workgroup that preceded the OEIB and largely worked in parallel to the 2011 legislative session. Once the legislature created the more permanent OEIB, the OEIT was disbanded. The team produced two reports that effectively served as a blueprint for Oregon's educational reform strategy. The recommendations in these reports affirm the education legislation passed in the 2011 session. Design teams associated with the OEIT were appointed, including the Early Learning Design Team and the Performance-Based Budget Design Team. The Early Learning Design Team was charged with recommending childhood and family investments that would ensure children were ready and able to learn when they got to kindergarten, while the Performance-Based Budget Design Team was to recommend a unified, performance-based budget model that spanned from early childhood through post-secondary education for consideration by the legislature. A related database group helped fulfill the data requirements of the developing designs, and other groups focused on achieving cost savings and efficiency within the K-12 system. The content of these reports related to the OEIB are analyzed in the section entitled "pre-OEIB theme: plan."

2011 legislative session. A number of bills were passed within the 2011 session that played a significant role in determining the composition and direction of the OEIB as well as its policies and related strategies. Of particular note is S.B. 909 (2011), which created the OEIB and outlined its scope, authority, and deliverables. The key legislation that impacted the not-yet-formed OEIB is discussed in the section entitled “pre-OEIB theme: structure.”

S.B. 909 workgroup. Once the legislature had passed S.B. 909 (2011) and created the OEIB, the OEIT was disbanded. The governor assembled the group of individuals that would become the OEIB, calling them the S.B. 909 workgroup. The S.B. 909 workgroup was divided into three work teams: the CEdO selection process team, the outcome-based investment strategies team, and the database planning team. The actions of these group are discussed in the section entitled “pre-OEIB theme: plan.”

NCLB waiver. The NCLB waiver program, also known as the Elementary and Secondary Education Act Flexibility (U.S. Department of Education, 2012) was officially announced by the federal government in September 2011. The program was a response to existing federal law’s escalating accountability measures, one-size-fits-all strategies for improvement, and over-identification of failing schools. It was estimated that the structure of the former law would have identified 42% of Oregon’s 594 Title 1 (low-income schools) as failing and assigned them federal improvement status, requiring an estimated \$35–45 million to be set aside in the state budget for 2012–2013 alone (OEIB, 2012a). States that successfully applied for the waiver would be offered relief from sanctions in exchange for adopting the policies outlined in the waiver program. The state

of Oregon decided to apply for the waiver and, in doing so, agreed to adopt the program's policy strategies (Oregon Department of Education [ODE], 2012). Details about the strategies and policies required by NCLB waiver program are described in the section entitled "synthesis: federal policy influences."

Pre-OEIB themes: Plan, structure, promote. Holistic coding of actions and activities in the pre-OEIB timeframe revealed three themes: plan, structure, and promote. The plan theme includes actions taken prior to the first official meeting of the OEIB that generated specific governor-supported recommended actions for the OEIB to take once confirmed. The two reports generated by the OEIT, along with the work of the S.B. 909 workgroup, fall into this category. The structure theme includes actions taken as a result of legislation created during the 2011 session that directly shaped how the OEIB was to operate internally and with other organizations. Four pieces of legislation fall into this theme. The promote theme covers structured activities with partners and the community that occurred within the pre-OEIB timeframe that shaped the key tenets of the OEIB's initial strategy that had not been raised in previous planning efforts. Reports of the three sponsored structured activities fall under this theme. Each of the three themes are described in greater detail below.

Pre-OEIB theme: plan. The OEIT presented two key planning reports to the governor. The first was required by Executive Order 11-02, which created the OEIT, and was entitled *Progress Toward a Unified, Outcome-Based 0-20 Education System That Supports Innovative Teaching and Learning* (OEIT, 2011a), or the Progress Report. The second report, compiled by a subcommittee of the OEIT (2011b), was entitled *Oregon*

Learns: The Strategy to Get to 40/40/20, also known as the Governor's Oregon Learns Report. These two reports summed up the work of the OEIT and were intended to provide a roadmap for the incoming Senate-confirmed OEIB members. After the OEIT was disbanded but prior to the confirmation of the OEIB members, the future OEIB members began planning within the S.B. 909 workgroup. The meetings of the workgroup were public and documented.

The Progress Report. Published in July 2011, the Progress Report begins by outlining Oregon's case for change, pointing to the need to build a stronger, more competitive economy through workforce development by increasing educational attainment rates and levels:

As knowledge and innovation become the prime capital in global competition, education increasingly determines the fortunes of individuals, communities, and nations. The workforce in every competitive economy needs higher levels of knowledge and skills than ever before. Employers depend on a ready supply of well-educated talent. Where education cements shared values and expands the personal horizons of individuals, it also advances family life, civic stability, and democratic ideals. This raises the bar for education attainment in Oregon. Everyone must achieve a diploma that represents a high level of knowledge and skills, with a vast majority moving on to postsecondary education or certification . . . (OJET, 2011a, p. 1)

Falling national assessment scores, graduation rate disparities, and the claim that only 36% of 25–34-year-old Oregonians held an associate's degree or higher at the time of publication (compared to over 50% within Canada, Korea, Russia, and Japan) were used as indicators of failure of the state's education system.

A key recommendation of the OEIT was to restructure state-level governance under one umbrella tied to a coordinated outcome-based education budget. The report acknowledged that new structures had been created within the 2011 legislative session.

The recommended budget design was described as a “fundamental change in paradigm” (OEIT, 2011a, p. 6) by moving from an input-based education budget tied to enrollment toward an outcome-based budget tied to a key set of measurable outcomes. A wide array of teaching and learning concepts were briefly presented with no implementation strategy, yet the report noted that these concepts were required to deliver achieve governor’s vision of student-centered learning, proficiency-based standards, and accelerated learning. Finally, the OEIT emphasized that the first step of the OEIB must be to create a strategic plan, commenting that “transformation starts with a strategic plan which should build on the work of the OEIT and the Quality Education Commission” (OEIT, 2011a, p. 6).

The following are four recommendations for the OEIB (OEIT, 2011a):

1. *Develop an outcome-based budgeting framework.* The report outlined the recommended budget framework concept in detail and included suggestions for possible outcomes to work toward. This is further described in the section entitled “synthesis: outcome focused-nexus.”
2. *Begin early childhood systems work.* The report acknowledged that S.B. 909 (2011) established the ELCL, which was to be overseen by the OEIB. It was recommended that the early learning system be completely redesigned in accordance with a basic concept plan provided by the OEIT. Additional specific short-term recommendations included building an early learning data system, revamping kindergarten assessment, and establishing a first-grade predictive benchmark for meeting measurable outcomes. Each of these recommendations aligned with the state’s Race to the Top—Early Learning Challenge grant application, an external federal policy influence.
3. *Obtain cost savings through efficiency.* Recommendations for cost savings through efficiency were vague regarding implementation. These recommendations included paperwork reduction, competitive funds to incentivize the establishment of shared services models in small districts, fiscal incentives to support efficient operations, incentives for consolidation of smaller districts, and closure of underutilized buildings. These were also a

requirement of the NCLB waiver application, an external federal policy influence.

4. *Build the system's capacity to continuously improve.* Recommendations for building the system's capacity for improvement were largely focused on the creation of an integrated data system and provision of professional development for its use. S.B. 909 (2011) required the development of a longitudinal data system from early learning through post-secondary. In addition, the OEIT recommended creating information sharing systems and a need to align local and state reports to learning outcomes to be determined by the OEIB. The database for improvement is further described under synthesis: outcome focused nexus.

The Progress Report was followed by a second report that was meant to expand on the state's strategy.

The Governor's Oregon Learns Report. The Governor's Oregon Learns Report, published in August 2011, was written by a subgroup of OEIT members prior to the disbanding of the OEIT (2011b). It was a draft of a strategy to guide the new OEIB in doing what the previous workgroup felt must be done to achieve the state goal of 40-40-20. The OEIT urged the OEIB to move quickly to organize assumptions, understand the differential impact of educational investments, build a long-term model that demonstrates how and when investments translate into earnings, and lower spending elsewhere in public budgets. The report clarified the OEIT's stance that 40-40-20 was only realistic if the state focused on achieving the stated graduation rates among young adults by 2025 rather than expecting the entire state's citizenry to achieve the same rates. Furthermore, the report highlighted the assumption that an annual percentage improvement increase must occur for the goals to be reached (i.e., high school graduation must increase each year by 0.6% per year, certificates by 6%, associates degrees by 3%, and bachelor's degrees by 2%; OEIT, 2011b, p. 3). The Governor's Oregon Learns Report (2011b)

served as a first draft of *Oregon Learns: Report to the Legislature from the Oregon Education Investment Board*, which was required by S.B. 909 (2011) and was published on December 15, 2011, in the early OEIB era.

The strategies outlined in the report were outcome-driven investment, a focus on early start with preschool aged children, creation of a seamless learner-centered system, proficiency of students, motivation and college-going culture, innovation in learning, teacher effectiveness, mainstream middle skills (referring to skills associated with achieving a diploma or certificate associated with the middle 40 of 40-40-20), affordable and equitable access, and integrated support systems. The outcome-driven investment plan was further detailed by the OEIT, but the remainder of the recommendations were only briefly described in the report and how they were to be implemented remained vague. However, the OEIT recommended that all 10 strategies be implemented together in order to realize the state's desired goals.

Outcome-driven investment. The OEIT Budget Design Team described the outcome-driven budget as “the [reform] strategy’s beating heart,” a “paradigm shift,” and “a simple if radically different theory of action . . . in that the state would measure what it values and get more for what it pays for” (OEIT, 2011b, p. 7). The funding model was summarized into three different funding streams: base-level funding that would be reasonably well assured and grow modestly, a faster-growing stream designed to inspire and reward outcome growth, and top-level funding aimed at selecting strategic initiatives. The budget is further described in the section entitled “synthesis: outcome focused

nexus.” Both OEIT reports were highlighted by the governor as important guides to follow at the first meeting of the S.B. 909 workgroup.

S.B. 909 workgroup. The S.B. 909 workgroup met in September 2011, picking up where the OEIT left off. Three key teams were assembled and tasked with getting a head start on the OEIB’s work once the OEIB was confirmed by the Senate. These workgroups were the CEEdO selection team, the outcome-based strategy team, and the database team.

CEEdO selection team. The CEEdO selection team was charged with recommending timelines and processes for selecting the CEEdO. The members were to decide between the use of an internal hiring team or use of an outside firm, frame policy issues regarding the job definition, and recommend a process for developing job qualifications with the opportunity for public input. By November 10, 2011, the team had determined that March 30, 2012, would be the deadline for hiring a CEEdO; developed an initial draft of the job description; and received proposals from nine recruiting firms, even though the team had not decided whether to use an external resource. The CEEdO workgroup is further described in the section entitled “early OEIB theme: prepare.”

Outcome-based investment strategies work team. The outcome-based investment strategies work team was charged with developing the framework and models for outcome-based investment strategies while coordinating with the external NCLB waiver workgroup and the database workgroup to ensure the alignment, compliance, and feasibility of the strategies. The team was to develop a sequencing strategy for implementation and develop an outreach and communications plan. It focused on

developing achievement compacts (formal agreements between the state and educational entities including districts, community colleges, and universities) as a way to tie together key leverage points to achieve state educational outcomes and provide funding to local educational entities. Details about the achievement compacts are provided in the section entitled “synthesis: outcome-focused nexus.” The team recommended that the OEIB seek legislation requiring achievement compacts between the state and educational entities beginning in the 2012–2013 school year so that these entities could receive funding. It was recognized that a substantial amount of work had to be done to ensure the utility and effectiveness of the achievement compact conceptual strategy.

Database plan team. S.B. 909 (2011) required the OEIB to deliver an integrated, state-wide, student-based data system that monitored expenditure by July 1, 2012. The S.B. 909 database workgroup continued the work of the OEIT database design team, reviewing work that was underway and that had been—and was being—funded by grants. The team coordinated with the outcome-based investment strategies team and the NCLB workgroup to ensure that the envisioned outcomes could be measured. Many challenges were noted, and the S.B. 909 workgroup requested that key terms, including *student-based* and *return on investment (ROI)*, be defined for database purposes. The database, which was later known as the statewide longitudinal data system (SLDS), is further outlined in the section entitled “synthesis: outcome-focused nexus.”

Pre-OEIB theme: Structure. A number of education-related bills were passed during the 2011 legislative session. Four of these bills laid the groundwork for restructuring state-level coordination of education from early learning to post-secondary

education: S.B. 253 (2011), which revised the goals of higher education; S.B. 909 (2011), which created the OEIB and ELC and called for the SLDS; S.B. 242 (2011), which established the HECC; and S.B. 552 (2011), which appointed the governor as the superintendent of public instruction once the current elected superintendent's term was up. Each of these bills are detailed below.

S.B. 253 (2011). S.B. 253 (2011) amended the mission of higher education to sign into law the governor's visionary goal of 40-40-20 by 2025. The statute stated that, by 2025, the state must ensure that at least 40% of adult Oregonians graduate with a bachelor's degree or higher; at least 40% of adult Oregonians earn an associates or post-secondary credential as their highest level of educational attainment; and the remaining 20% have earned at least a high school diploma as their highest level of educational attainment.

S.B. 909 (2011). S.B. 909 (2011) established the OEIB and required a CEdO to be hired. It established the ELC and required the creation of an SLDS. The 13-member OEIB was to consist of the governor, who would serve as the chair, and 12 additional governor-appointed board members to be confirmed by the Senate. The board needed to include one representative from each congressional district and two recommendations each from the Speaker of the House of Representatives and the President of the Senate.

The purpose of the board was to ensure

that all public school students in the state reach the education outcomes established for the state. The board shall accomplish this goal by overseeing a unified public education system that begins with early childhood services and continues throughout public education from kindergarten to post-secondary education. (S.B. 909, 2011, section 1[1])

The bill established the Oregon Education Investment Fund, which was distinct from the General Fund, to fund the board's activities, but it did not indicate how much funding would be provided. According to a fiscal analysis it was anticipated that about \$3 million would need to be appropriated from the general fund to the governor's office to cover the OEIB's expenses. The bill directed the board to submit a report to the interim legislative committee on education by December 15, 2011, outlining the proposed legislative measures for the 2012 session needed to achieve the board's purposes. The bill sunset the OEIB, the Oregon Education Investment Fund, and the ELC on March 15, 2016. At the time of passage, the OEIB was to operate out of the Governor's Office.

S.B. 242 (2011). S.B. 242 (2011) created the HECC but appropriated no funding for it at the time. The governor was to appoint a 15-member commission, subject to confirmation by the Senate. The bill granted the commission the authority to coordinate education policy with the Oregon University System (OUS) and community colleges. It abolished the Office of Degree Authorization and transferred its functions to the HECC and renamed the Oregon Student Assistance Commission as the Oregon Student Access Commission (OSAC). It exempted the OUS from certain laws related to state agencies and created a process for the State Board of Higher Education to enter into performance compacts with the state in conjunction with biennial funding requests. It also authorized the board to offer fee remissions to students, purchase property, and construct facilities without seeking legislative approval.

S.B. 552 (2011). The superintendent of public instruction oversees the ODE. S.B. 552 (2011) made the governor the superintendent of public instruction once the remainder of the current elected superintendent's two-and-a-half-year term ended. It directed the governor to appoint a deputy superintendent at the time he assumed the role. The deputy was to have at least five years of experience in the administration of an elementary or secondary school.

These bills began the process of restructuring state-level oversight of public education. For future details, see the section entitled "synthesis: structure."

Pre-OEIB theme: Promote. The initial reform plan-in-action was shared with others in order to garner buy-ins and seek feedback. Three reports were of particular note and influenced the OEIB once it was confirmed: the report of the LearnWorks group meetings, the State Board of Education retreat, and the OUS Symposium. A summary and analysis of each are provided below.

The LearnWorks group. In August 2011, after the legislative session wrapped up but prior to the first meeting of the S.B. 909 workgroup, the Oregon Business Council funded a 12-day gathering of 30 educators and community leaders to discuss ideas about how the OEIB and legislature could best support students and educators in order to reach the 40-40-20 goal by 2025. Specific strategies recommended by the LearnWorks (2011) group were similar to and aligned with those recommended by the OEIT. However, the LearnWorks (2011) group offered three other notable recommendations: maintain a central focus on equity, adopt a tight-loose approach to state involvement in educational

change, and create a refined set of student-centered learning stages across the learning continuum as measurable outcomes with connected metrics.

The LearnWorks (2011) group highlighted the importance of a strong focus and commitment to equity that had been absent or inexplicit in planning thus far. The LearnWorks group underscored that without an intentional and explicit focus on equity, it would be impossible to meet the state's new goals (see the section entitled "synthesis: equity" for more on the OEIB's stance on equity). Furthermore, the LearnWorks (2011) group recommended the state pursue a tight-loose relationship with education providers, in which the state holds those receiving public education funds tightly to commitments achieve desired outcomes, while remaining loose about how the education providers achieved those outcomes. In other words, the LearnWorks group recommended that the OEIB provide focused outcomes with clear indicators and improvement measures for success while enabling local control, removing barriers to innovation, and supporting and disseminating best practices (LearnWorks, 2011). (See "synthesis: outcome-focused nexus".) Finally, the LearnWorks group refined the OEIT's suggested outcomes and presented the outcomes as learner-centered learning stages tied to possible metrics (LearnWorks, 2011). (See "synthesis: outcome-focused nexus".)

State Board of Education. The State Board of Education met with additional stakeholders on August 16, 2011, to discuss education reform plans and develop recommendations to be presented to the governor in October 2011. The group discussed three topics: student-centered learning and its implications, outcome-based budgeting, and the implications and opportunities of the OEIB and 40-40-20 goal strategies. These

discussions resulted in a number of recommendations focused on the lack of emphasis on equity throughout the reform as well as the strong need for greater communication and engagement with the field (State Board of Education, 2011). (See “synthesis: equity and strategic plan”.)

OUS-sponsored symposium. On November 1, 2011, 300 education and community leaders gathered for a symposium sponsored by the OUS on Oregon’s plans for education reform. A report entitled *40/40/20 from Goal to Reality*, which summarized the proceedings, was published following the symposium. While this event resulted in few new ideas beyond the LearnWorks group’s and State Board’s suggestions, it was the largest gathering and communication about this topic to date. Equity, a tight-loose approach, and communicating with those expected to enact the work were reiterated. In general, the report indicated that there was support for the reform approach (OUS, 2012).

Pre-OEIB: Summary. The pre-OEIB era, which occurred prior to the confirmation of the OEIB, focused on preliminary planning, structuring, and promotion of the reform. Strong political commitment and support for educational change were evident in the governor’s action to make education a state priority and in the legislature’s support for and passage of bills in service of change efforts. Economic advancement of the state through workforce development and increases in the number of citizens with diplomas, certificates, and degrees was the driving narrative for action to fulfill the revised mission for higher education, which included specific numeric targets to be achieved by a specific date. A shift in the control of education at the state level had begun with the creation a

top-level board to steer the system chaired by the governor, and the eventual appointment of the governor as the superintendent of public instruction. The focus on increasing education funding produced recommendations by the Budget Design Team and OEIT to fund outcomes rather than inputs, reward success in reaching outcomes, accelerate change through strategic investments, track returns on investment through data to encourage efficient spending, and apply for financial relief from federal sanctions in exchange for complying with federal policy mandates. These actions framed the context and much of the theory of change based on which the confirmed OEIB members would begin their work.

Early OEIB: November 18, 2011–July 1, 2012. Early OEIB is the period of time from the Senate confirmation of the appointed OEIB members to the start date of the first CEEdO, Dr. Crew. The data reveals three themes that arose in the early OEIB era: adopt, prepare, and implement early. Table 8 presents a timeline of this period, outlining the turning points and action-related themes.

Early OEIB turning points. Notable turning points in the early OEIB era included the following:

- Confirmation of the OEIB members
- 2012 legislative session
- Creation of the Education Funding Team by the governor to complete budget design work
- Hiring of the first CEEdO
- Early resignation of the elected superintendent of public instruction

Table 8

Early-OEIB Turning Points and Themes

Date	Turning Points and themes	
Early OEIB Nov 18th, 2011–July 1st, 2012		
11/18/2011	OEIB—senate confirmed members—first meeting 11/21/11	Turning Point
12/07/2011	CEdO job description—adopted	Adopt
12/15/2011	OEIB Report to Legislature—outlined legislative priorities for board to fulfill work as outlined in S.B. 909 (2011)	Adopt
02/01/2012	Legislative session began (first annual legislative session)	Turning Point
03/2012	Education Funding Team appointed; OEIB stipulated outcomes to organize around	Turning Point
03/2012	NCLB waiver—submitted	Turning Point
03/06/2012	S.B. 1581 (2012) clarified positions under direction of CEdO; Required education providers to enter into achievement compacts to receive state funding for education	Implement Early
03/06/2012	H.B. 4165 (2012) Removed sunset on ELC. Established fund and expanded oversight. Established YDC. Abolished Commission on Children and Families.	Implement Early
03/06/2012	2012 Legislative session ended	Turning Point
03/13/2012	P-20 workgroup focused on restructure—appointed	Prepare
03/27/2012	H.B. 4061 (2012) Created special committee on university guidance to analyze higher education system	Prepare
03/27/2012	CEdO position—adopted deliverables	Adopt
04/10/2012	OEIB approved temporary rules for completion of achievement compacts	Adopt
04/11/2012	H.B. 4056 (2012) task force on STEM access and success	Prepare
04/11/2012	S.B. 1538 (2012) HECC distinguished roles and duties relative to the OEIB; clarified purpose and funding stream	Prepare
04/12/2012	Outcome indicators and measures—finalized and shared with Education Funding Team, State Longitudinal Data System, and Achievement Compact workgroup; identified promising practices for priority investment	Implement Early
05/30/2012	Dr. Crew: signed letter of interest for CEdO role	Turning Point
06/30/2012	Budget reviewed to set priorities	Prepare
06/12/2012	Achievement compact technical advisory committee approved	Prepare
06/12/2012	Superintendent of Public Education resigns 2.5 years early	Turning Point
06/13/2012	Request for proposal for SDLS contract addressed future needs	Prepare
07/01/2012	Chief Education Officer Rudy Crew's official start date	Turning Point

Notes: Legislation organized by effective date. Additional legislation related to education passed in the 2013 legislative session not listed above included: eliminating outdated rules and provisions, lead poisoning prevention, expanded mandatory reporting, textbook affordability, credit for prior learning, Western Governors University online training, cyberbullying, seismic risk, banning native school mascots (Legislative Administration Committee Services, 2012).

Each of these turning points are described in more detail below.

Confirmation of OEIB members. During the first meeting of the OEIB as an official government entity, the governor clarified the purpose and immediate priorities of the board via a letter (Kitzhaber, 2011b). Specifically, he stated that the OEIB's work and immediate priorities were to be driven by the responsibilities and deliverables outlined in S.B. 909 (2011). The responsibilities included ensuring that all public school students in the state reach the desired outcomes (40-40-20 by 2025), and the deliverables included a design for the P-20 (pre-school through post-secondary) education system with coordinated and consolidated oversight, hiring of a CEo, implementation of a student-centered longitudinal database (i.e., SLDS), a budget redesign to focus on outcomes, a redesign of the early childhood system, and a recommendation for how to move forward with the achievement compact concept and align student outcomes with state investments, as recommended by the S.B. 909 workgroup (Kitzhaber, 2011b).

Given that the ELC and directives for the council were created by the same bill that established the OEIB—S.B. 909 (2011)—the ELC's priorities and reporting were combined with those of the OEIB until the ELC was moved from the governor's office to the ODE in 2013. The documentation and meeting minutes indicate that ELC work was largely conducted independently of the OEIB, and decisions were shared with the OEIB, which served as an oversight body. Analysis of ELC data are included only so far as it relates to the actions of the OEIB (e.g., shared reports, directives, and legislation).

2012 legislative session. The year 2012 was the first year that the Oregon Legislature held short even-year sessions in addition to longer odd-year sessions. Both

the OEIB and the ELC recommended legislative concepts that were eventually proposed during the session, including S.B. 1581 (2012) and H.B. 4165 (2012), respectively. In addition, legislation clarified the roles of the HECC (S.B. 1538, 2012) and the university guidance (H.B. 4061, 2012) and the science, technology, engineering, and mathematics (STEM) task force (H.B. 4056, 2012). Details about the roles of these bills can be found in the section “Early OEIB: prepare and implement early.”

Creation of Education Funding Team. The governor appointed the Education Funding Team, which was separate from the OEIB, to design the 2013–2015 education budget. In his opening letter to the OEIB, however, the governor had directed the board to create the budget (Kitzhaber, 2011b), and this was mentioned again in the *Oregon Learns: Report to the Legislature* (OEIB, 2011b). This shift in responsibility away from the OEIB was accompanied by a process for keeping the OEIB involved through shared meetings with the new Educational Funding Team. The OEIB was responsible for recommending the outcomes on which the Education Funding Team budget would be based, and strategic investments to achieve particular outcomes, as directed by S.B. 909 (2011). (See “synthesis: outcome-focused nexus” for more details on the budget.)

NCLB waiver submitted. The state submitted a waiver application to the federal government via ODE. The application underlined that all education reform in the state would need to align with the requirements of the waiver (ODE, 2012). (See “synthesis: federal policy input.”)

Hiring of CEdO Crew. During the early OEIB timeframe, the S.B. 909 workgroup’s CEdO selection committee continued to create a job description and duties,

which led to the hiring of CEdO Rudy Crew (OIEB, 2011a, 2012b). (See “early OEIB: early implementation.”)

Superintendent resignation. S.B. 552 (2011) replaced the elected superintendent of public instruction with the governor once the superintendent’s term ended. When CEdO Crew was hired, the elected superintendent resigned early. As per S.B. 552 (2011), the governor became the superintendent and appointed a deputy superintendent of public instruction to head up the ODE. At this time, the governor held the top role regarding coordination of education in Oregon as the chair of the OEIB and the superintendent of public instruction.

Early OEIB themes: Adopt, prepare, implement early. Holistic coding and thematic analysis of actions of the early OEIB timeframe revealed three themes: adopt, prepare, and implement early. The adopt theme includes actions taken by the confirmed OEIB to clarify what, how, and why the OEIB would move forward with the various suggested changes to the education system. Many of the stated actions were adopted from the work that took place in the pre-OEIB era. *Oregon Learns: Report to the Legislature* (OEIB, 2011b) outlined how these actions would be adopted. The prepare theme includes actions taken to research and organize for future OEIB actions and decisions. Two pieces of legislation and the creation of an OEIB subcommittee fall under this theme. The implement early theme refers to early actions taken by the OEIB prior to the start date of the first CEdO, including the legislation and implementation of policy and strategy needed to secure a CEdO, the implementation of achievement compacts, legislation to clarify the role of the HECC, steps taken to further work on

SLDS, and a legislative concept developed by the ELC that was later passed by the legislature. Each of the three early OEIB themes are described below.

Early OEIB theme: Adopt. Once it was established, the OEIB had to complete a large amount of reform planning work from the pre-OEIB era and determine the board's path forward. The path was largely articulated in the report required by S.B. 909 (2011), *Oregon Learns: Report to the Legislature from the Oregon Education Investment Board December 15th, 2011*, shortened here to *Oregon Learns: Report to the Legislature*.

Oregon Learns: Report to the Legislature. The OEIB's first order of business was to deliver a report to the legislature one month after board members' confirmation to outline the OEIB's priorities for the 2012 legislative session (OEIB, 2011b). This report should not be confused with the OEIT's (2011a) *Governor's Oregon Learns Report*. In the initial pages of the report, the OEIB credited the OEIT design teams and stakeholder workgroups, who prepared much of the background work.

The report stated that the OEIB would focus on three strategies aligned with the directives in S.B. 909 (2011). First, the OEIB would continue to build a coordinated public education and career readiness system from pre-school through college (P-20). The OEIB (2011b) stated this state-level restructuring was focused on the integration of capacities and better use of resources, which in turn was intended to encourage and support successful teaching and learning. Second, the OEIB would focus state investments on achieving student outcomes as recommended by the OEIT. The OEIB outlined broad student outcomes without specific metrics: (a) all Oregon children enter kindergarten ready for school, (b) students move along the learning pathway at the best

pace for them to achieve success, (c) students graduate from high school and are college- and career-ready, and (d) those who pursue education beyond high school complete their program of study and are ready to contribute to Oregon's economy (OEIB, 2011b). The OEIB indicated that learning outcomes would drive state investments and become codified through achievement compacts (agreements between the state and educational entities), as recommended by the S.B. 909 workgroup. Third, the OEIB would build a statewide support system—the SLDS—as required by S.B. 909 (2011). The OEIB (2011b) also aimed to eventually expand statewide efforts that would support professional learning communities and opportunities to continue to coordinate and integrate health and human services with the needs of students and families, but no specific strategy was stated.

In addition, the OEIB adopted a focus on equity, as suggested by pre-OEIB stakeholder groups, highlighting a need to reach out of school youth and to create affordable options as well as aspirations for post-secondary education. The OEIB (2011b) highlighted the benefits of its stance on equity, including better health among citizenry, decreased need for social services, and decreased involvement with the criminal justice system. The OEIB (2011b) highlighted that it was adopting a tight-loose policy framework, as suggested by the LearnWorks group, remaining “tight” in terms of holding educational entities to state-determined outcomes while “loose” in terms of how educational entities would achieve those outcomes.

Details about the next steps, including those related to the hiring of the CEdO, implementation of achievement compacts, the OEIB's stance on the NCLB waiver

application, SLDS, regulatory relief, consolidation of governance functions, institutional boards at universities, and outcome-based budgeting are summarized below.

CEdO. The OEIB formally stated its goal to hire a CEdO one month later than initially planned. The board proposed a legislative concept to clarify the CEdO's authority as leader of the development of an integrated public education system. A copy of the OEIB-approved CEdO job description, which was attached to the report as an appendix, indicated that the role would require "visionary leadership, skillful collaboration with legislators, educators, parents and education stakeholder at the state and local level, and effective engagement of community leaders and citizens to build and implement an integrated and aligned education system" (OEIB, 2011b, p. 74).

Achievement compacts. Achievement compacts were living documents intended to represent partnership agreements between the state and educational institutions. They were to continue to evolve and improve over time, fostering communication and two-way accountability. Achievement compacts were also intended to generate intentionality in budgeting at the educational entity level to support local alignment with state outcomes while providing a basis for comparison of progress within districts and between districts with comparable populations. When the report was released, the OEIB acknowledged that achievement compacts were still a concept and not fully operationalized. Examples of possible compacts created with stakeholders were included in the appendices of the report (OEIB, 2011b, p. 80). The OEIB also submitted a legislative concept that, if passed, would require achievement compacts to be submitted by all public educational entities in order to receive state funding.

NCLB waiver. Although the waiver application (ODE, 2012) was not directly under the purview of the OEIB, the OEIB acknowledged in the report that accountability measures and other reform actions would be consistent and aligned with the waiver requirements and mutually reinforce them.

SLDS development and application. Consistent with S.B. 909 (2011), the OEIB set a goal to have the first education ROI reports available to the legislature by July 1, 2012, using previously granted funding for database development. The database team's report, which included both short- and long-term strategies across early learning, K-12 and post-secondary education, was added to the appendices of the *Oregon learns: Report to the legislature* (OEIB, 2011b, p. 98).

K-12 regulatory relief. While legislation reducing regulations and reporting imposed on school districts was passed in the pre-OEIB era, the OEIB acknowledged that there was more reduction to be done. It stated that all reductions of reporting requirements would align with the NCLB waiver requirements (OEIB, 2011b).

Streamlining and consolidation of governance functions. The OEIB stated that it would create a workgroup guided by defined principles to complete the P-20 alignment work. In addition, it called for future streamlining and consolidation of higher education, planning to arrive at a single entity. Prior to the 2013 session, the workgroup was to report to the legislature regarding the necessary statutory changes in executive positions and boards.

Institutional boards at universities. In the *Oregon learns: Report to the legislature*, the OEIB noted that the governor had asked the board to develop an option

for universities to establish independent boards with clearly defined powers. The report indicated that the future CEEdO would be responsible for working with members of the OEIB and Oregon State Board of Higher Education to develop recommendations and terms for these boards.

Outcome-based budgeting for 2013–2015. The OEIB stated that it would take responsibility for defining measurable state outcomes and guiding the budget development process with a 10-year horizon. Together, the governor and the board would establish a sustainable baseline of funding for educational entities and additional resources to achieve the best possible outcomes across the education continuum. It was noted that the OEIB would find ways to identify and incentivize the adoption of best practices and that it would then direct investments to the initiatives with the highest returns.

ELC. As required by S.B. 909 (2011), the ELC submitted a report to the OEIB to be included in *Oregon learns: Report to the legislature*. The ELC's report made multiple recommendations tied to one legislative concept, which became known as H.B. 4165 (2012). At the time the report was released, Oregon had applied for a \$40.6 million grant for Race to the Top—Early Learning Challenge and was awaiting federal government release of awardees. The ELC confirmed in the report that the early learning reform strategies and legislative requests it presented in the report aligned with those in the grant application, which, like the NCLB waiver, required compliance with federal direction in the creation of state policies and reform strategies. The ELC's actions and related legislative concept contained seven elements: adopting universal screening practices,

improving the quality of childcare and preschool, aligning the learning framework from birth to kindergarten, piloting a single updated ready-for-school assessment, building a strong accountability and investment system, designing a true system of early learning support, and streamlining government agencies and programs for more effective use of taxpayer dollars.

An agenda for excellence. Finally, the report listed common critiques of failed U.S. state-led reforms, including that teachers and administrators are blamed for performance problems, evaluation systems are instituted to push principals and teachers to be more effective, testing for accountability costs money and time, and the narrowing of curricula causes students to disengage. Common post-secondary challenges, such as rising tuition, overbooked courses, and high debt loads, were also mentioned. The OEIB claimed that the proposed reform would be different in that it would focus on motivating learners and teachers; commit to equity by supporting every student; support high-quality teaching through training, licensing, recruiting, and mentoring new teachers; develop meaningful ongoing performance evaluations and professional development; and promote individualized learning. Existing models of education delivery that had already been enacted within Oregon were highlighted as promising pathways forward such as the Eastern Promise, which provided rural students with college credit in high school and the Promise of Affordable College via the Oregon Opportunity Grant.

Early OEIB theme: Prepare. Further research to inform the OEIB's actions was necessary in some cases. Two bills passed in the 2012 legislative session created a special committee on university guidance 8 (H.B. 4061, 2012) and a task force on STEM

access and success (H.B. 4056, 2012). Additionally, the OEIB created its own P-20 workgroup also investigate issues surrounding the redesigning the P-20 system. Each of these groups are outlined below.

Special committee on university guidance. H.B. 4061 (Or.2012), which was put forth at the request of the House Interim Committee on Higher Education, created a special committee on university guidance to analyze Oregon's higher education system in relation to other education programs and missions to help determine the best structure for higher education coordination and governance. It required the committee to submit recommendations to the governor and Oregon Legislative Assembly no later than November 2012, and sunset the committee on this date. S.B. 909 (2011) gave the OEIB the authority to coordinate the P-20 system (which includes higher education). The special committee operated in parallel to the OEIB, with two overlapping members.

Task force on STEM access and success. H.B. 4056 (2012), put forth at the request of the House Interim Committee on Higher Education, created a joint task force comprised of leaders and students in the field of STEM intended to encourage more students to study STEM. The task force was charged with identifying obstacles and opportunities as well as assessing and recommending strategies to increase student enrollment and success. The task force was required to submit a report to the legislative committee by October 2012. This task force operated in parallel to the OEIB.

OEIB P-20 workgroup. With authority from S.B. 909 (2011) to coordinate the P-20 system the OEIB also set up a workgroup to work on the completion of the statewide redesign of education governance. This workgroup focused on developing

legislative concepts for the 2012 legislative session and agreed to work with the parallel legislative committees.

Early OEIB theme: Implement early. Once it was official, the OEIB took concrete actions to begin implementation of planned policies and strategies prior to onboarding the first CEEdO, including completing the hiring of the CEEdO and implementing the achievement compacts. Legislation further clarified the role of the HECC and the ELC, while the database team planned the next steps toward completing the SLDS.

CEEdO. Once the OEIB approved the job description for the CEEdO, the CEEdO workgroup put forth a legislative concept in S.B. 1581 (2012) to help clarify other state roles that the CEEdO would oversee. The workgroup articulated six specific deliverables for which the new CEEdO would be responsible in the 2012–2013 year and aided in the completion of the hiring process.

S.B. 1581 (2012). S.B. 1581 (2012) identified positions that would be under the direction and control of CEEdO for matters related to the design and organization of the state's education system. The CEEdO would oversee the commissioner for community colleges and workforce development, the chancellor of the OUS, the executive director of the OSAC, the director of early childhood systems, the deputy superintendent of public instruction (upon appointment), and the executive director of the HECC (upon appointment). The CEEdO would not have the authority to appoint or remove any of the persons listed.

Duties of the CEdO. A job description for the CEdO was approved in December (OEIB, 2011a), and in March 2012, an 11-page document outlining six specific, detailed CEdO responsibilities and deliverables was also approved (OEIB, 2012c). These responsibilities and deliverables were as follows: (a) design, organize, and implement a state-level P-20 system; (b) develop a 2013–2015 outcome-based budget for education within the framework of the governor’s statewide 10-year budget project; (c) oversee the implementation and advance the use of achievement compacts for all public education entities in Oregon; (d) ensure the timely development of a longitudinal database to guide investments and calculation of ROI; (e) oversee the implementation of the reorganization plan for early childhood services; and (f) reach an agreement with the OUS regarding the terms and implementation plan for university boards.

Hiring of the CEdO. The OEIB elected to conduct a nationwide executive search using an external recruiting company. Reports from the recruiting company indicated that over 500 outreach calls were made, with specific attention paid to diversity. Almost 200 candidates were nominated, and over 50 nominee’s expressed interest. Four were selected to participate in second-round interviews.

On May 30, 2012, a letter of interest was signed by Dr. Crew, former chancellor of New York City Public Schools, former superintendent of Miami-Dade County Public Schools, and current professor at the University of Southern California’s Rossier School of Education. The contracted work term would begin on July 1, 2012, and last for two years, with a decision to renew or not renew the contract made one year prior to expiration. The appointment was “at will,” which allowed either party to terminate the

relationship at any time, although 30 days' written notice of voluntary resignation was required. Outside activities and consultation duties for additional remuneration were deemed to be acceptable, as long as they did not interfere or conflict with the CEO duties and were approved by the board.

Achievement compacts. In order for the OEIB to implement the achievement compact concept in time for the 2012–2013 school year, it needed to work on this immediately after becoming official. Legislation mandating the compacts, determining outcomes and metrics, setting rules, and determining distribution was enacted prior to the start date of the first CEO.

S.B. 1581 (2012). In addition to clarifying the role of the CEO, S.B. 1581 (2012) laid out the terms of the achievement compacts. Achievement compacts were required from education entities in exchange for state funding. The governing body of each education entity (i.e., school districts, education service districts, community colleges, public universities, and the health profession and graduate science programs of the Oregon Health Sciences University) were required to enter into an achievement compact by a specified date. S.B. 1581 clarified that the OEIB would establish terms for achievement compacts including goals to achieve the desired outcomes presented in the 40-40-20 statute, as well as outcomes and measures of progress that would allow each entity to quantify completion rates. The governing body of each education entity was required to identify a target number and percentage of students that would achieve the outcomes, measures of progress, and goals specified in the achievement compact for the fiscal year. The governing body had to include an aggregate of all disadvantaged

subgroups, in accordance with federal law or the rules adopted by the board. Open communication with stakeholders of the education entities was required. The OEIB also had to specify the format of the achievement compacts and provide a model to the governing body of each educational entity. The OEIB was required to adopt a timeline and method by which governing bodies could provide the OEIB with a report at end of the fiscal year describing their achievements. Furthermore, the bill directed education entities to form achievement compact advisory committees to develop and implement the achievement compacts. The achievement compacts and advisory committees were to be repealed on July 1, 2015.

Goals, outcomes, and measures. In March 2012, the OEIB approved outcomes to be measured in achievement compacts. These outcomes were intended to drive the outcome-based budget and be measurable by the SLDS. The overarching goal of the achievement compacts was for all Oregonians to be prepared for lifelong learning, rewarding work, and engaged citizenship. Four specific outcomes along the educational continuum were also specified, all of which featured selected indicator(s) and specific measure(s) to quantify the measure, and thus the outcome (OEIB, 2012c):

1. Outcome: All Oregon children enter kindergarten ready for school.
 - a. Indicator: Ready for school; Oregon’s youngest learners—at home, in childcare, or in preschool—have the necessary cognitive, social, emotional, and behavioral skills to be ready for kindergarten.
 - i. Metric: Kindergarten Readiness Assessment of all children entering school.
2. Outcome: All Oregonians move along the learning pathway at the pace that works best for them.

- a. Indicator: Ready to apply math and reading skills by the end of third grade, or about age 9.
 - i. Metric: State standardized tests for math and reading administered in third grade. Indicator: Sixth grade not chronically absent from school.
 - ii. Metric: Chronic absenteeism in sixth grade.
 - b. Indicator: By the start of tenth grade, or roughly age 15, students should demonstrate the knowledge, cognitive skills, and behaviors necessary to earn a diploma.
 - i. Metric: Ninth graders on track for graduation with correct number of credits.
3. Outcome: All Oregonians graduate from high school ready for college and careers.
- a. High school students demonstrate career and college readiness in multiple measures, including academic knowledge, critical thinking, communication, collaboration, and creativity.
 - i. Measures: Oregon diploma, college credit earned in high school, and college enrollment.
4. Outcome: All Oregonians pursue education beyond high school; complete their chosen programs of study, certificates, or degrees; and are ready to contribute to Oregon's economy.
- a. Indicator: Oregonians who graduate from Oregon's post-secondary institutions are well prepared to be responsible and productive members in their communities.
 - i. Measures: Associates degrees and certifications and bachelor's degrees.

On March 6, 2012, S.B. 1581 (2012) was enacted. Achievement compacts including outcome measures, technical rules, and communication plans were approved by the OEIB later that month. Compacts were distributed to educational entities in early April for completion by early July, just in time for the incoming CEdO to review. In

mid-June, the database team sent a memo to the OEIB recommending that an achievement compact technical advisory workgroup be created to help collect, distill, and disseminate the knowledge gained from the first round of achievement compact completion. The database team noted that a technical advisory committee would support future refinement of both compacts and database including modifications such as definitions or methodologies for calculating targets, statewide data collection to build data history for measures collected at the local level, and addition or removal of certain phrases in targets.

S.B. 1538 (2012). S.B. 1538 (2012) clarified the roles of the HECC, expanding and clarifying its duties relative to the OEIB. The bill directed the HECC to advise the OEIB on state goals and achievement compacts with public universities, community colleges, and the OSAC. Under the OEIB's direction, the HECC was to develop strategic plans for achieving statewide higher education goals, with special emphasis on access, affordability, and facilitation of transfer and movement within the post-secondary education system. The bill also stated that the HECC should work with state and local boards at private independent colleges to achieve Oregon's 40-40-20 goal.

H.B. 4165 (2012). H.B. 4165 (2012) bill was significant as it removed the sunset on the ELC, established an ELC fund, and expanded oversight of the ELC. It also established the YDC to advocate and support positive development of youth including the connection out-of-school youth to educational opportunities. Furthermore, the bill established goals and timelines for the YDC to complete specified projects and continuously allocated funding for the council. The Juvenile Crime Prevention Advisory

Committee, the State Commission on Children and Families, and the Commission on Childcare were abolished, and their functions were transferred to the YDC. These changes aligned with the Race to the Top—Early Learning Challenge grant application and recommended a new financial model across agencies, a kindergarten readiness assessment, alignment of pre-kindergarten and kindergarten standards, and connection of practitioners with decision-makers.

Request for proposal for SLDS. In June 2012, the leader of the database team issued a memo to the OEIB announcing that they had issued a request for a proposal to further design the future of the SLDS. It was expected that the cost to develop the plan to develop the database would be \$99,000.

Early OEIB: Summary. The early OEIB era, which began with the confirmation of the OEIB members and lasted until the start date of the first CEEdO, focused on adoption, preparation, and early implementation of the reform. The actions taken during this period helped solidify the (largely implicit) theory of change from which the confirmed OEIB members began their work. The pre-OEIB plan was largely adopted by the OEIB with two notable additions: clarification of the central role of the board's stance on equity in their work and a "tight-loose" approach to policy recommendations. While the OEIB continued to oversee other governing bodies, legislation further distinguished the ELC and HECC as independent from the OEIB and created an additional body, the YDC. Research on the next steps for the higher education P-20 design revealed the need for parallel legislative workgroups. The governor's appointment of the Education Funding Team (EFT) shifted the outcome-based budget development process largely

outside the board; the OEIB submitted outcomes and recommended strategic investments to the EFT.

Actions taken in the early OEIB era focused on ensuring that a CEdO was hired, as required by S.B. 909 (2011), and developing and implementing the proposed achievement compact concept, which was deemed to be crucial for connecting the state to education entities. The OEIB's adoption of goals, outcomes, and measures operationalized the role of achievement compacts, and the outcome-based budget and SLDS became central drivers of reform efforts.

Crew OEIB: July 1, 2012–July 1, 2013. The Crew OEIB era began on the start date of the first CEdO, Dr. Crew, and ended on the date of his resignation. The data revealed three themes that arose in the Crew OEIB era: account, invest, and execute. Table 9 presents a timeline of this period, outlining the turning points and action-related themes.

Crew OEIB: Turning points. Five turning points were identified in the Crew OEIB era:

- Crew start and early departure
- NCLB waiver approved
- ODE deputy superintendent appointed
- 2013 legislative session
- Equity Lens

Each are described in greater depth below.

Table 9

Crew OEIB Turning Points and Themes

Date	Key Actions, Turning Points, Crew OEIB July 1st 2012 to July 1st 2013	
07/01/2012	CEdO Crew—date started	Turning Point
07/10/2012	Achievement compacts—first are completed	Accountability
07/19/2012	NCLB waiver—approved	Turning Point
07/31/2012	Deputy Superintendent of Public Instruction—appointed	Turning Point
02/04/2013	2013 legislative session began	Turning Point
02/2013	Strategic plan—approved	Accountability
02/2013	Strategic investments—approved	Investment
03/12/2013	Regional achievement compact pilot—approved	Accountability
04/09/2013	OEIB equity lens—adopted and approved	Turning Point
04/09/2013	English learner statewide strategic plan—approved and recommend to ODE for Implementation	Execution
06/18/2013	H.B. 3075 (2013) achievement compact timeline—revised	Accountability
06/28/2013	S.B. 755 (2013) Minority teacher act—amended to include teachers when first language was not English	Execution
07/01/2013	Crew—resigned; waived 30-day notice Golden—appointed interim CEdO	Turning Point
07/01/2013	S.B. 5521 (2013) 2013-2015 Biennium budget—approved; increased education funding over previous biennium	Investment
07/08/2013	2013 legislative session ended	Turning Point
07/19/2013	H.B. 3234 (2013) Established Early Learning Division in ODE—aligned early learning with K-12	Execution
07/19/2013	H.B. 3231 (2013) Established Youth Development Division in ODE—connected out of school youth to education options	Execution
07/25/2013	H.B. 3232 (2013) OEIB made strategic investments: Early reading program; guidance/support for post-secondary aspirations; connecting to the world of work	Execution
07/25/2013	H.B. 3233 (2013) Established the Network for Quality Teaching and Learning funded by H.B. 2506 (2013)	Execution
08/14/2013	H.B. 2013 (2013) Directed ELC and ODE to assist school districts in implementing KRA; Hub development grants	Execution
08/14/2013	H.B. 2636 (2013) Established STEM Investment Council to double stem degrees/certificates by 2025; double math/science achievement at 4 th and 8 th grade by 2025.	Investment
08/14/2013	S.B. 222 (2013) Established Accelerated Learning Committee	Execution
08/14/2013	S.B. 270 (2013) Granted boards at University of Oregon and Portland State University with option at third university	Execution
08/14/2013	H.B. 3120 (2013) Granted additional authorities to HECC; Created Office of Student Access and Completion; HECC looked at outcome-based funding formula for higher education	Execution

Note: Legislation organized by effective date. Education legislation not included in the timeline above includes policies intended to removing barriers, charter school application process, veteran tuition waivers, discipline, admission of non-resident students, tuition equity, transition services, common numbering for lower division courses, vision screening, mental health screenings, concussions (Legislative Administration Committee Services, 2013).

Crew start and early departure. Dr. Rudy Crew's tenure began with much anticipation. The return of completed achievement compacts and the completion of a strategic plan were top priorities. As a new leader who was new to the state of Oregon, Crew had to do significant work to acclimate to the role and location, and there was an immediate need to build strong ties within the statehouse and across the educational delivery field and community, including with parents, students, and the taxpaying public.

About eight months into Dr. Crew's tenure, the members of the OEIB analyzed actions and determined what was essential for achieving and tracking the board's results. The strategic plan approved by the board was the first method deemed to be important for tracking results, and it was recommended that a score card be created with metrics to monitor achievement and new tools be developed to communicate and justify the board's relevance and effectiveness. The OEIB also began to work on developing a performance evaluation process for the CEdO. The communications director recommended holding off on public communications efforts until after the end of the busy legislative session. Dr. Crew resigned from the position of CEdO on July 1, 2013, a year earlier than contracted, after accepting the role of President of Medger Evers College, Brooklyn, at the City University of New York. In a special meeting, the OEIB waived the requirement for the CEdO to provide 30 days' notice of resignation. Although the media expressed many opinions regarding Dr. Crew's departure, the OEIB meeting data were inexplicit about the reasons for his departure. However, several actions noted in later OEIB documentation indicate tension between Dr. Crew and the state. First, the 2-year CEdO contract contained a clause stating that the OEIB had the option to renew the contract at

the one year mark, and the CEdO resigned before the renewal time. Second, the OEIB was working on accountability tools, including a public performance evaluation of the CEdO and a score card tracking the OEIB's successes. Third, the communications director for the Governor's Office recommended halting communications efforts until after the legislative session was over, and Crew resigned shortly afterward. Fourth, the legislature did not enact structural and financial legislative changes until the day of Dr. Crew's resignation or after. Fifth, a personnel management and oversight committee was formed to manage the next CEdO after Dr. Crew's departure. Sixth, ethics and administrative training was introduced for all OEIB staff and board members after Dr. Crew's departure. Seventh, Dr. Golden's review when she served as CEdO (just over a year after Dr. Crew's resignation) stated, "Dr. Golden needed to restore trust, credibility, and connection to diverse stakeholder and educators" (OEIB, 2014b, p. 1).

NCLB waiver approved. The NCLB waiver received conditional approval from the federal government in July 2012. Full approval was pending clarification of how evaluations of teachers and administrators would include student test results. The waiver required specific external accountability measures, some of which overlapped with measures of achievement compacts.

ODE deputy superintendent appointed. After the resignation of the elected superintendent of public instruction, the governor assumed the role, and as per S.B.552 (2011), he appointed a deputy superintendent to head up the ODE. This governor-appointed position marked a shift in the visibility and interaction between the ODE and the OEIB. The deputy superintendent was present at many OEIB meetings and

participated in efforts to align the work of OEIB with that of the ODE, including the move of the ELC and YDC to the ODE.

2013 legislative session. Numerous education-related bills were proposed during the 2013 legislative session. Eight proposed bills were directly tied to the OEIB's work, and another 40 related to education were being monitored by the OEIB.

Equity lens. Subcommittees aligned with the strategic plan were created. The Equity and Partnerships Subcommittee worked to generate the OEIB approved the Equity Lens, which contained a series of belief statements that framed discourse and were identified as helpful for creating common language around equity. The lens was intended for use by the OEIB when making recommendations regarding policy or the allocation of resources. Other education agencies in Oregon were also encouraged to adopt the lens.

Crew OEIB themes: Account, invest, execute. Holistic coding and thematic analysis of the actions during the Crew OEIB era revealed three themes: account, invest, and execute. The account theme includes actions that focused on accountability measures, including the creation of a strategic plan that included deliverables and measures, review of completed achievement compacts, and approval of a pilot of regional achievement compacts. The invest theme includes actions taken to invest part of the legislative 2013–2015 budget in education and obtain funding for four strategic investments recommended by the OEIB. The execute theme includes the enactment of numerous legislative and policy changes that were approved within this time frame, including moving the ELC and YDC to the ODE, funding the OEIB as a standalone agency outside of the Governor's Office, giving additional authority to the HECC,

creating the Accelerated Learning Committee and STEM Investment Council, and approving separate university boards. In addition, legislation was passed to implement the Kindergarten Readiness Assessment (H.B. 2013, 2013), the Minority Teacher Act (1991) was amended (S.B. 755, 2013), and the OEIB created and adopted the Equity Lens (OEIB, 2013b). Each of these action-based themes are discussed in more detail below.

Crew OEIB theme: Accountability. The accountability framework for achievement compacts had already been implemented upon Dr. Crew's start date, so as CEdO, he was responsible for reviewing this framework. In addition, he was responsible for creating a strategic plan approved by the board that outlined specific actions and measures to meet the state's 40-40-20 goal. An idea for collective accountability—regional achievement compacts—was presented by the Best Practices and Innovation subcommittee with support from the CEdO.

Strategic plan. CEdO Crew presented a draft of his strategic plan to the OEIB in August, 2012. Final reading and board approval of the plan occurred in February (OEIB, 2013a), around the start of the legislative session. Figure 6, which was extracted from the strategic plan presentation by the CEdO to the OEIB, shows the central role of the OEIB's adopted outcomes and indicators as drivers of change. The arrows demonstrate the flow of the work from the governor and OEIB to the rest of the state's education system. The vision and guiding principles are positioned below the outcomes and indicators.



Figure 6. Overview of strategic and operational planning process. Source: Crew (2013, p. 3).

Four specific strategic objectives were approved by the OEIB to guide actions through June 2015. These objectives were to be reviewed every 6 months. They are described briefly below.

The first objective was to complete the design and implement the P-20 structure, including aligned standards, assessments, and support systems for the P-20 system, and to complete the creation of the SLDS. Components of this objective overlapped with the

requirements of the NCLB waiver. The OEIB Governance and Policy Subcommittee was created to support this work.

The second objective was to enact policies to support achievement initiatives and maintain a “tight-loose” orientation. This required analyzing, writing, and advocating for policies that affect and support achievement initiatives and define how education was to be delivered. However, it was unclear exactly how the tight-loose structure would be implemented. Achieving this objective also required review of current policies to lessen the compliance burden on educational entities, which was a requirement of the NCLB waiver. A host of potential strategies were identified to complete this objective. The Best Practice and Innovation Subcommittee and the Equity and Partnership Subcommittee were appointed to support this work.

The third objective was to create an outcome-based budget aligned with strategic initiatives. This involved creating, monitoring, and revising the OEIB’s strategic and operational plan, including metrics to measure outcomes. Plans were to be monitored at least biannually and updated and shared at least annually. This outcome also included the OEIB contribution to the development of the biennium budget by tying the budget to strategic initiatives. It was unclear how the strategic plan and its updates were related to the OEIB outcome-based budget directives, given that the creation of the budget was to be completed by the Education Funding Team. The State Investment Subcommittee was created to support this work.

The fourth objective was to work to build an informed and engaged public. The OEIB was focused on creating channels for two-way communication with major

stakeholders about the need for change, strategies, and opportunities for engagement.

One proposed way to create these channels was to use achievement compacts to establish regional collaborations and community commitment to meet state-identified outcomes and achievement compact goals. No specific subcommittee was set up to support this objective.

Strategic initiatives. In accordance with S.B. 909 (2011), the OEIB was tasked with designing and implementing initiatives to improve student achievement. The 2013 strategic plan included specific details about these initiatives that were supposed to directly affect student learning along the P-20 continuum. In the strategic plan, implementation was defined as “establishing protocols and process for distributing resources to the field” (OEIB, 2013a, p. 7). The four areas covered by the initiatives were early learning and literacy, diverse professional corps of educators, connection to the world of work, and post-secondary aspirations. Each area was further refined before incorporation into the budget and presentation to the legislature. The plan included support and accountability for initiatives via the achievement compact process and the Oregon Report Card (the ODE’s annual report on the state of education and schools’ ratings). ROI calculations were to be used to guide future investments.

Achievement compacts. Educational entities returned the first round of achievement compacts to the CEdO in varying degrees of completeness in July 2012. The reports of OEIB meetings included in documentation with the minutes indirectly pointed to tension between the CEdO’s and education entities’ expectations regarding compacts. Later, an achievement compact assessment reviewed the 2011–2012 compact

process, clarified that the CEEdO had sent a number of compacts back to education entities to be redone in the first round due to disagreement over projections.

Regional achievement compact pilot. In March 2013, a proposal for a regional achievement compact pilot in the 2013–2014 school year was put forth by the Best Practice and Innovation Subcommittee and approved by the OEIB. This pilot aimed to bring together all the institutions in a region to share ideas, pool resources, and ensure that all institutions recognized and contributed to the development of a P-20 continuum to prepare students for success in post-secondary education. The pilot, which was modeled off existing community collaboratives in the state, was optional and was implemented in addition to the existing achievement compact requirement. The OEIB was to provide examples of successful collaboratives, but the framework was to be defined by the regions themselves. The pilot aimed to address the need for community direction and engagement by improving student outcomes in a way that the existing achievement compacts could not. Participants in the pilot were to report back to OEIB with recommendations regarding the process and documentation, and future efforts would be implemented accordingly.

Each institution was to complete a compact that presented two levels of performance. Level one would include metrics regarding traditional student academic growth targets within a region, as identified in existing achievement compacts. Level two would involve data identified by institutions as addressing challenges within the community (i.e., beyond the classroom) and helpful for changing the culture of schools and colleges.

Institutions participating in the pilot were to attend an annual State Connections Conference, at which community agencies, districts, and colleges were to gather to learn about new programs, opportunities, and resources that could aid their work.

Crew OEIB theme: Invest. As the OEIB's name suggests, the reform strategy initiated by the governor framed education spending as an investment in the state's future. It intended to restructure education spending based on student outcomes in order to build the state's workforce and, in so doing, improve the state's economy. S.B. 909 (2011) directed the OEIB to recommend strategic investments to accelerate the state's goals. The legislature's approval of the 2013–2015 biennium budget, including funding of the strategic investments recommended by the OEIB, and are categorized under this theme.

Budget approval. The 2013–2015 biennium budget was approved on the same day Dr. Crew resigned as CEEdO, possibly indicating confidence in the shift in leadership by the legislature. The approved budget invested more in education, increasing the allocation by 12.8% (\$8.6 billion). As a result, education spending represented over 50% of Oregon's total state budget. In 2013, 40% of the education budget was allocated to K-12 education, and the remaining 11.8% was divided amongst all other educational institutions (Joint Special Committee on Public Education Appropriation, 2013).

Strategic investments. The strategic investments recommended by the OEIB were designed to rapidly improve performance on identified key outcomes, close achievement gaps, encourage collaboration, leverage resources, and build networks to replicate successful strategies and best practices across the state. In order to fulfill its task of

creating a seamless education system from early learning through to post-secondary education, the OEIB recommended that nearly all of these strategic investments be administered through entities other than the OEIB. The large majority of funds were ultimately allocated to the ODE, but small programs were also given funding, including the OSAC, the State Library, and the Oregon Arts Commission.

H.B. 3232 (2013). H.B. 3232 (2013) funded the strategic initiatives of Oregon Early Literacy Initiative, the Guidance and Support for Post-Secondary Aspirations Initiative, and the Connecting to the World of Work Initiative with a total of \$29.3 million. Of this funding, \$700,000 was provided to the OEIB for four new positions within a research unit for the P-20 educational continuum, \$500,000 was provided for grants to assist in convening groups for regional achievement compact, \$200,000 was provided for state education conferences, and \$250,000 was provided for a statewide reading campaign. This bill was implemented in the Golden OEIB era.

H.B. 3233 (2013): Network of Quality Teaching and Learning. H.B. 3232 (2013) established the Network of Quality Teaching and Learning, which provided funding and a comprehensive system of support for educators to create a culture of leadership, professionalism, continuous improvement, and excellence among teachers and leaders throughout the P-20 system. The OEIB was tasked with supporting the network and establishing accountability systems, and the ODE was tasked with supporting the network; disseminating best practices; and distribute grants and contract funding to school districts, community colleges, post-secondary institutions, early learning service

providers, and nonprofit organizations. In total, \$45 million was allocated to the ODE by H.B. 3233 (2013). This bill was implemented during the Golden OEIB era.

Crew OEIB theme: Execute. The execute theme involves initialization of the execution of reform changes. The Crew OEIB era was marked by the first full legislative session since the confirmation of the OEIB, which had been active for just over a year, during which time it had hired its first CEo, put in place an approved strategic plan, and established subcommittees to work on aspects of the strategic plan.

More education-related legislation was passed in this session than in any other legislative session during the OEIB's tenure. Shifts were made in the state-level P-20 structure, and the OEIB, ELC, and HECC were no longer under housed within the Governor's Office. The Accelerated Learning Committee and STEM Investment Council were created to improve student outcomes, and the legislature approved separate boards for universities. The Minority Teacher Act of 1991 was amended, and the Kindergarten Readiness Assessment of the ELC was supported by the OEIB.

During the Crew OEIB era, the OEIB worked to secure the legislation and created and approved policy guidance in the form of the Equity Lens. Each of the bills created as a result of the OEIB's work are outlined below.

H.B. 3234 (2013) and H.B. 3231 (2013). H.B. 3234 (2013) and H.B. 3231 (2013) made structural changes to the ODE by establishing two new departments, the Early Learning Division and the Youth Development Division, which were intended to include the ELC and YDC, respectively. The two councils remained under the oversight of the OEIB in order to maintain a streamlined P-20 system.

H.B. 3120 (2013). H.B. 3120 (2013) gave additional authority to the HECC, modifying the membership requirements and duration of initial appointments, creating the Office of Student Access and Completion, and abolishing Oregon Student Access Commission. In addition, it gave the HECC authority over community colleges, removing them from the purview of the State Board of Education.

OEIB agency. The approved budget effectively made the OEIB independent of the Governor's Office by giving it its own funding.

S.B. 270 (2013). Separate boards at the University of Oregon and Portland State University were approved, and Oregon State University was given the option to establish a board if the university president chose to do so. The legislature felt that the state of Oregon would benefit from having public universities with governing boards that were close to and closely focused on their universities, as this would provide increased transparency, public accountability, and support for the university. The legislature was tasked with monitoring the governing boards, which were to be comprised of trustees, subject to specific rules and control by the state. The boards would work with the HECC, issue revenue bonds to pay for construction and acquisition of property and facilities, develop and approve annual budgets, hire and fire presidents, manage existing buildings on behalf of the state, and set tuition rates for out-of-state and graduate students, with limited authority to raise residents' undergraduate tuition. This legislation was supported by white papers from the universities, which approved the establishment of boards.

S.B. 222 (2013). S.B. 222 (2013) established the Accelerated Learning Committee. This committee directed the OSAC and ODE to work on strategies to

increase opportunities for high school students to earn college credit, which would help achieve the goals of the state.

H.B. 2636 (2013). H.B. 2636 (2013) established the STEM Investment Council to improve the number and diversity of students graduating in STEM fields in order to support Oregon’s labor needs. In addition, it established a grant program to advance these educational goals.

H.B. 2013 (2013). H.B. 2013 (2013) supported implementation of the Kindergarten Readiness Assessment, which aligned with the requirements of the state’s Race to the Top—Early Learning Challenge grant. It provided funding to the ELC for professional development and quality improvement in the early learning system, and it provided funds for the creation of early learning hubs within communities, along with other early learning support systems.

S.B. 755 (2013). An amendment was made to the Minority Teacher Act of 1991 (S.B. 755, 2013) to broaden the definition of the term “minority” to include teachers whose first language is not English. The bill required a report on the status of minority teachers to be submitted to the legislature.

Equity lens. The Equity and Partnership Subcommittee was tasked with providing guidance and recommendations to the board to achieve more equitable outcomes for the state and obtaining board approval for the creation of the Equity Lens. The Equity Lens focused equity outcomes on race and ethnicity, and it aimed to provide a common vocabulary and protocol for resource allocation and evaluation of strategic investments (OEIB, 2013b).

Crew OEIB: Summary. The Crew OEIB era, which lasted from the hiring of the first CEEdO until his resignation one year later, focused on accountability, investment, and execution of the reform strategy. The data revealed that initial actions for change were implemented quickly during this period, despite many moving parts, including a new CEEdO. The overarching goal was to generate recommendations for the 2013 legislative session, particularly related to budget distribution. The OEIB's strategic initiatives were funded, as were other initiatives put forth by other agencies that promised progress toward the state's goals. The Equity Lens offered a framework to aid the allocation of resources, and other agencies were encouraged to adopt it. Review of achievement compacts, communication between the OEIB and the field, and SLDS implementation were minimal in this period. At the time of Dr. Crew's departure, most initiatives were still in their infancy.

Golden OEIB: July 1, 2013–February 18, 2015. The Golden OEIB era began with Dr. Nancy Golden's appointment as interim CEEdO and ended with Governor Kitzhaber's resignation. The data analysis revealed three themes that arose during this period: refocus, communicate, and distribute. Table 10 presents a timeline of this period, outlining turning points and action-related themes.

Golden OEIB: Turning points. The Golden OEIB era included four key turning points.

- Golden made interim and then official CEEdO
- August 2013 planning meeting
- 2014 legislative session
- Kitzhaber's fourth term and early resignation

Table 10

Golden OEIB Turning Points and Themes

Date	Key Actions, Turning Points, Golden OEIB July 1st, 2013 to February 18th, 2015	
07/01/2013	Golden appointed interim CEdO	Turning Point
07/08/2013	2013 legislative session ended	Turning Point
08/12/2013	August planning meeting	Refocus
09/27/2013	Hired Dr. Golden as CEdO	Turning Point
02/02/2014	2014 legislative session began	Turning Point
03/06/2014	H.B. 4150 (2014) Revised assessment and rating system standards for school districts. Established standards for proficiency education, repealed H.B. 2220 (2011)	Refocus
03/10/2014	2014 legislative session ended	Turning Point
03/11/2014	H.B. 4116 (2014) Managed HECC and Department of Community Colleges and Workforce Development; Aspirations to college grant program for underserved, low-income, first generation students \$750k	Distribute
03/11/2014	S.B. 1524 (2014) Tasked HECC with analyzing "Oregon Promise" provision of free college to Oregon students	Distribute
11/14/2014	CEdO performance review 2013-14	Communicate
01/01/2015	H.B. 4058 (2014) Amended middle 40 of 40-40-20 goals to include apprenticeship programs	Refocus
01/10/2015	S.B. 1574 (2014) Student access to dual-credit programs for college credit grade 9-12	Refocus
01/13/2015	Governor sworn in for a 4 th term in office; last meeting of OEIB	Turning Point
02/18/2015	Governor resigned amid federal investigation relating to business of partner. Secretary of state filled the vacant role of Governor. All OEIB meetings suspended	Turning Point

Note: Legislation organized by effective date. Additional legislation related to education passed in the 2014 legislative session not included in the timeline above includes refining inter-district transfers for public school students, university governance, recruitment practices for post-secondary institutions, task force on school safety, summer meals, Native American mascots (Legislative Administration Committee Services, 2014).

The significance of each turning point is described in detail below.

Golden made interim and then official CEdO. Upon the resignation of Dr. Rudy Crew as CEdO on July 1, 2012, Dr. Nancy Golden was immediately appointed as the interim CEdO. Golden had served on the OEIB from the outset as the governor's

designated chair and was the superintendent of a local district for 10 years. The subcommittee responsible for hiring the new CEdO determined it would not immediately conduct a national search, which would have been both time-consuming and costly, as they believed that the top candidate was already on the board. Over the next few months, the committee focused on completing the required hiring procedure. Golden officially became the CEdO on September 27, 2013.

August 2013 planning meeting. On August 12, 2013, the OEIB and related agencies met for a planning meeting led by Dr. Golden. This meeting refocused the OEIB regarding the initiatives in action as well as its relationship with partner agencies. Of particular note was Golden's explicit redirection of the OEIB to focus on students' transitions between traditional education silos, which differentiated this focus from that of other state education agencies, boards, commissions, and councils. There was a renewed effort to explicitly communicate the actions of the OEIB both internally and externally.

2014 legislative session. The 2014 legislative session was a short session in which a limited number of education-related bills were put forth. The passed bills focused on transitions related to higher education. For example, H.B. 4116 (2014) created a program to provide college grants to underserved, low-income, and first-generation college-goers; S.B. 1524 (2014) directed the HECC to analyze the expansion of the Oregon Promise grant, which provided free college funding; H.B. 4058 (2014) expanded the definition of the middle 40 of 40-40-20 to include apprenticeships; and S.B. 1574 (2014) provided students access to dual-credit programs to gain college credit in

high school. In addition, H.B. 4150 (2014) aligned the school assessment and rating system with the NCLB waiver requirements. These bills were operationalized by educational agencies other than the OEIB.

Kitzhaber's fourth term and early resignation. The final turning point of the OEIB was particularly notable. Toward the end of the OEIB's tenure, the governor, who was the chair of the OEIB, became plagued with legal challenges. Despite these challenges, he was elected to a fourth term on January 13, 2015. The same day as the election, the OEIB held a regular board meeting, which would end up being the last full meeting of the board. On February 13, 2015, Governor Kitzhaber announced his resignation from office. While no OEIB meeting documentation acknowledged the reasons for his departure, Kitzhaber's resignation statement to the media provided some explanation:

It is not in my nature to walk away from a job I have undertaken—it is to stand and fight for the cause. For that reason, I apologize to all those people who gave of their faith, time, energy and resources to elect me to a fourth term last year and who have supported me over the past three decades. I promise you that I will continue to pursue our shared goals and our common cause in another venue. I must also say that it is deeply troubling to me to realize that we have come to a place in the history of this great state of ours where a person can be charged, tried, convicted and sentenced by the media with no due process and no independent verification of the allegations involved . . . I wish Speaker Kotek and President Courtney and their colleagues on both sides of the aisle success in this legislative session and beyond. And I hope that they are truly committed to carrying forward the spirit of bipartisanship and collaboration that has marked the last four years in Oregon. (Kitzhaber, 2015, para. 30)

Oregon's Secretary of State at the time, Brown, was next in line for the governor's position. Upon taking the position of governor, she suspended full meetings

of the OEIB, although some subcommittees continued to meet until the legislature disbanded the board during the 2015 legislative session.

Golden OEIB themes: Refocus, communicate, distribute. Prior to becoming interim and then official CEdO, Dr. Golden operated as the governor's designated chair of the OEIB. With intimate knowledge of the board's intentions and actions to date, she was well positioned to seamlessly lead the next steps of the OEIB. Holistic coding and thematic analysis of the Golden OEIB era revealed three major themes: refocus, communicate, and distribute. The refocus theme includes initial actions taken to reset the board under new leadership, refine the focus of work on initiatives that was already underway, and align subcommittee work with new intentions. The communicate theme includes actions related to the public hiring and evaluation of the CEdO, explicit communication of the unique value of the OEIB, and clear demonstration of the OEIB's progress to date. Finally, the distribute theme includes actions taken to distribute leadership including identifying ex officio members of the OEIB to participate and making an effort to share work across education entities. Each of these action-based themes are discussed in more detail below.

Golden OEIB theme: Refocus. Upon her appointment as interim CEdO, Dr. Golden held a planning meeting to refocus the board, and the strategic plan was updated with a work plan and directives focused on operationalizing policy, legislation, and connected strategies. In addition, OEIB subcommittees were explicitly realigned to help complete the work.

August planning meeting. The 2013 August planning meeting started by identifying that student transitions were an area that the OEIB was uniquely positioned to support. New staff members, including a research and policy director, communications director, SLDS director, and STEM director, were hired to fill out the OEIB as a stand-alone agency. It was also recommended that an executive director be hired for the HECC.

The focus of the OEIB was restated “to dissolve the long-standing barriers and silos among education jurisdictions and between the multifaceted communities our schools serve in order to take full advantage of the shared talent, knowledge, relationships and resources present in each community which will fundamentally transform the quality and equity of Oregon’s public education.” In addition, the board members’ statutory roles in relation to the board’s planned work were reiterated. These roles included:

1. Building a seamless pathway by aligning K-12 and post-secondary agencies, focusing on key student transitions, and recommending policy to help students overcome barriers;
2. Establishing and monitoring key outcomes to ensure that students are on track based on the achievement compacts;
3. Recommending key investments designed to improve the outcomes of achievement compacts and defining/refocusing investments, including financial, policy, and legislative investments;
4. Playing a leading role in the policy and budget recommendation process by performing the analysis of investment recommended by subcommittee members and other education agencies;
5. Using best practice data developed by the new research and policy team to inform investment recommendations and leverage data on investments to improve student outcomes;

6. Creating the SLDS; and
7. Hiring and evaluating the CEEdO.

The planning was refocused again in August 2014 to update the next steps for the OEIB and preparing for the upcoming regular 2015 legislative session, which was to include the 2015–2017 biennial budget.

Strategic plan. As Dr. Golden took on her new role as CEEdO, the main objectives of the strategic plan remained largely the same. However, given the massive amount of legislation, policy, and strategies that were passed and approved during the Crew era, the focus of the board and educational agencies shifted from planning to operationalizing these policies, statutes, and strategies. Thus, the September 2013 strategic plan and connected workplan featured many tasks involving creation, implementation, and development. A selection of some of the objectives, beginning with the action verbs *create*, *implement*, and *develop* are listed below to illustrate the broad scope of operationalization work performed during the Golden OEIB era:

- **Create:** Create the Early Learning and Youth Development Divisions of the ODE, create an OEIB policy and research unit, create a ROI model, create recommendations for strategic initiatives tied to key outcomes, create a strong multi-faceted communication plan, create and implement a statewide plan for teacher recruitment.
- **Implement:** Implement NCLB waiver, implement early learning hubs; implement early learning standards, implement the Kindergarten Readiness Assessment, implement common core state standards and assessments, implement an early learning innovation fund, implement a statewide literacy campaign, implement an early reading initiative in Oregon, implement STEM and Career and Technical Education opportunities for under-served youth, implement the post-secondary aspirations initiative, implement Youth Development Division initiatives and youth gang prevention, implement teacher and educator assistant licensure pathways, implement the Equity Lens, implement parent engagement and education programs concerning early

learning and literacy, implement initiatives to make connections to the world of work, implement a statewide plan for English language learners.

- **Develop:** Develop a tiered quality rating and improvement system for early learning, develop a STEM council and STEM investment fund, develop the Network for Quality Teaching and Learning, develop the Office of Education Equity.

The strategic plan was refined throughout the Golden era to reflect the work that was completed, and new foci adopted based on the outcomes.

Subcommittees. Work to refocus OEIB subcommittees was first presented to the OEIB by CEEdO Golden in August 2013, and the plan for future work was further refined in September of the same year. The Governance and Policy subcommittee was disbanded, and the members were reassigned. The Best Practice and Student Transition subcommittee (formerly Best Practice and Innovation) was explicitly refocused to recommend a research and policy agenda for student success that focused on student transitions, particularly the Kindergarten Readiness Assessment and grade 11–14 outcomes. This subcommittee also worked in the summer of 2013 to approve a statewide strategic plan for English language learners, which was a requirement of the NCLB waiver. The Equity and Partnership subcommittee, which kept its name, was tasked with monitoring and supporting the implementation of the Equity Lens that it had developed as well as with developing policy recommendations to support disengage youth and provide a platform for diverse voices to be heard. The Outcomes and Investment subcommittee replaced the short-term Growth and Results subcommittee and was tasked with developing a framework for analyzing the achievement compacts, recommending a tool or methodology to calculate the ROI of legislatively funded strategic initiatives,

examining the state's progress toward 40-40-20, and recommending future strategic investments. Finally, the Personnel Management and Oversight subcommittee, which replaced the Management subcommittee, was charged with overseeing the CEdO, developing a process for evaluating the interim CEdO, and conducting the hiring process for a permanent CEdO.

Golden OEIB theme: Communicate. The OEIB's focus was continuously communicated during the Golden era. Dr. Golden remained transparent throughout her tenure, from her public hiring through to her public review as interim CEdO. Communicating the unique value and impact of the OEIB became a high priority, as did demonstrating the progress on strategic objectives achieved to date.

CEdO's role. The choice to forgo an outside recruitment firm in favor of an internal hiring process also meant forgoing privacy throughout the hiring process, as the OEIB was a public entity and thus all meetings and related documents were open to the public. The public vetting of the second OEIB CEdO included several roundtables with stakeholders and individuals from the field. Dr. Golden received high ratings across the board.

Throughout Dr. Golden's tenure, she produced a two-page monthly progress report of every action she took and directly tied each action to the OEIB's strategic objectives. In addition, she published a brief monthly letter online, which was intended to reach a broad audience and helped make visible both her own and the OEIB's daily work.

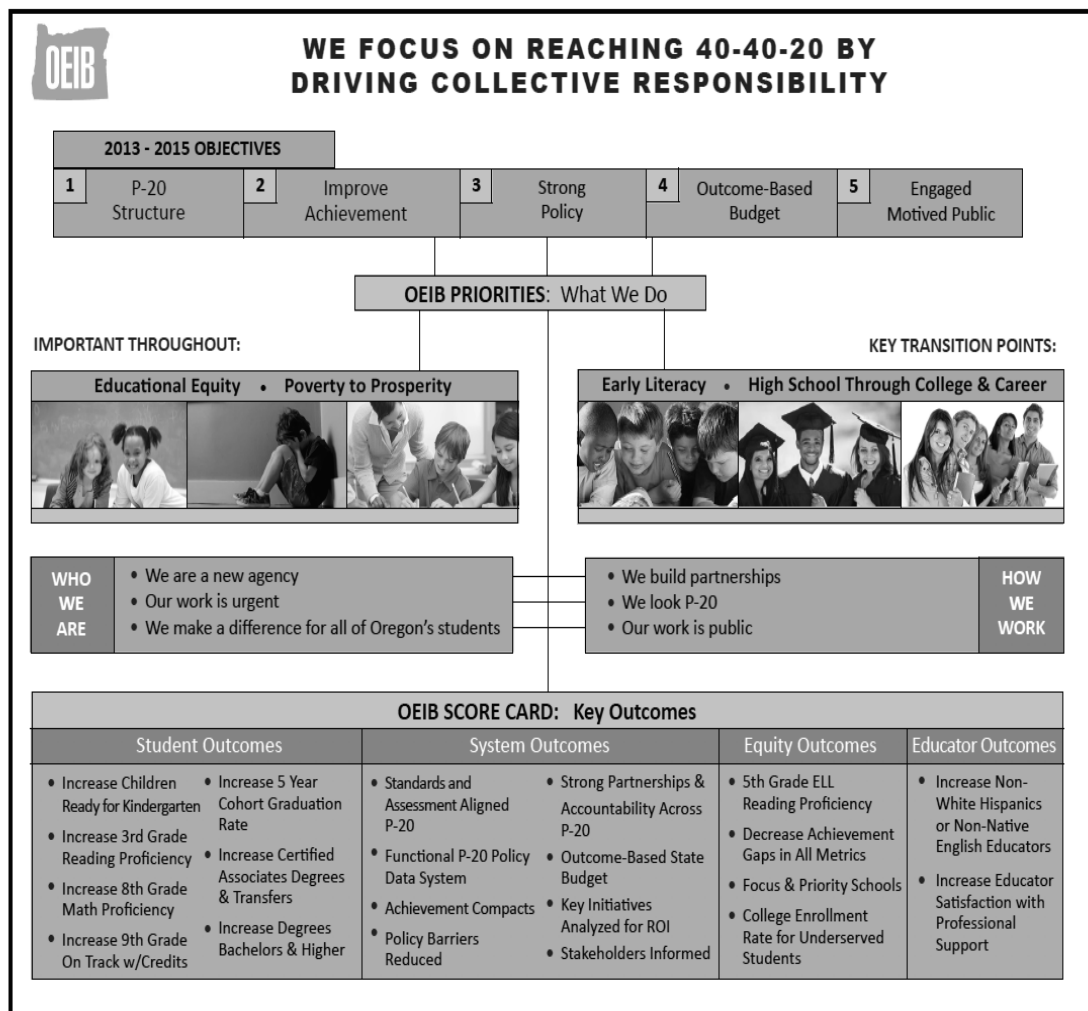
As with the hiring process, the process of evaluating the CEEdO was made public. The evaluation process consisted of two overlapping phases. Phase one was a self-evaluation in which CEEdO Golden provided feedback on her own performance via an internally developed scorecard, and she completed a written feedback form. Phase two involved input from the OEIB and key agency leaders and staff. The results of the performance review were submitted by the subcommittee responsible to the OEIB in November 2014 and subsequently accepted by the board. According to the review report, Dr. Golden met or exceeded expectations for her first year as CEEdO, and she positively changed the perception of the position among both the public and members of the OEIB:

In order for the OEIB to carry out its legislative charter and build a student-focused agency and culture within the P-20 system, Dr. Golden needed to restore trust, credibility, and connection to diverse stakeholders and educators . . . She built foundational systems for the office, her staff team, and the State, and led the efforts to build administrative and staff structures, set operational norms, and implement the first round of strategic investments and the equity policy. (OEIB, 2014b, p. 1)

The review also stated, “The 2014–15 school year presents itself as an opportunity for continued focus on implementation of the strategies and tactics that map our 40-40-20 by the 2025 goal” (OEIB, 2014b, p. 2).

Unique value of the OEIB. Golden determined that the complexity of statewide education reform required consistent and clear communication, both internally (i.e., within the board) and externally (i.e., to state and local educational agencies and entities, the legislature, educators, students, employers, and the taxpaying public). If the OEIB was to remain a useful entity, it was essential that the communication conveyed the unique value that the OEIB provided to reform efforts. With the support of a

communications director on staff, a one-page graphic was generated and approved in the summer of 2014 to aid communication (see Figure 7).



July 2014

Figure 7. OEIB 2013–2015 objectives. Source: OEIB (2014a, p. 5).

During the Golden era, the OEIB generated meeting documents and presentations, which gradually became branded with the board logo. This signified that the work was completed by the OEIB indicating OEIB’s unique value, board action items gradually

began to be presented in a brief format, which provided background information and reasons why motions were put forth for board approval. Furthermore, the board's website was updated to represent the OEIB as a stand-alone agency that was no longer part of the Governor's Office. Communication focused on the relative ease of access to information with regard to language, graphic representations explaining policies, connected strategies, and availability.

Progress to date. In addition to communication of the unique value of the OEIB, communication of the progress made to date was a high priority. The Outcomes and Investment subcommittee worked with the research and policy director to generate a key outcome scorecard, track the OEIB's expenditure on recommended strategic investments while working with the SLDS team to create an ROI tool, and initiate an achievement compact research project and report on the pilot regional achievement compacts (RAC's).

Scorecard. The OEIB developed and approved a scorecard during the Golden era that presented a succinct, overarching visual of where the state stood regarding key outcomes (OEIB, 2014a). The outcomes were expanded beyond student outcomes, as presented in the achievement compacts, to include system outcomes, equity outcomes, and educator outcomes.

Strategic investments. During the Crew era, implementation of strategic investments from an OEIB perspective involved only designing a method of distributing funds and calculating ROI. The legislature distributed funds to identified agencies, and in the Golden era, the OEIB generated a report indicating the categories of work that the funds eventually supported. ROI analysis on these initiatives using the SLDS system was

not yet complete by the end of the Golden era. In preparation for the 2015–2017 biennial budget, the OEIB refocused its criteria for strategic investment.

Achievement compact research. As a central tenant of the overall reform strategy, the new OEIB research and policy unit analyzed the intended purpose of the achievement compacts in comparison to reality. The results and recommendations of the research were presented at an OEIB meeting, and multiple attempts were made to update the achievement compact process (OEIB, 2014a). At the final meeting of the OEIB in January 2015, another attempt to revise the achievement compact was in the works.

Pilot RACs. Pilot regional achievement compacts—later renamed pilot regional achievement collaboratives—gained a lot of positive momentum and support from the field. The OEIB leveraged communication about pilot RACs to foster collaboration and enhance educational achievement compact outcomes across the P-20 continuum. In addition, the RACs pooled not only diverse perspectives among the RAC membership but also a wide cross-section of public, civic, and private partners in an effort to build collective responsibility. The OEIB drew parallels between the work of the RAC and the Oregon health authority transformation highlighting the power of regional, ground up strategies to build shared accountability and allow for innovative problem solving.

Golden OEIB theme: Distribute. With the OEIB refocused on overseeing the coordination of the P-20 system while supporting transitions between education silos, it was necessary to distribute the work to operationalize numerous OEIB objectives. Under Dr. Golden’s leadership, explicit efforts were made to distribute primary responsibility for actions across agencies. OEIB rules were updated to include ex-officio positions

within the OEIB, including positions from the Teaching Standards Practice Commission and Oregon Health Authority, to ensure that all parties had a seat at the table. Joint meetings between organizing boards were scheduled when an action focused on transitions. For example, the OEIB and ELC held joint meetings regarding the transition from age three to grade three and the Kindergarten Readiness Assessment. Finally, the strategic plan and connected workplan included all outcomes across the P-20 continuum while explicitly outlining the responsibilities of each agency. The OEIB's explicit coordinating function and distribution of actions further helped to argue for the OEIB's unique value and role and helped to flatten what was seen as a hierarchal state structure.

Golden OEIB: Summary. The Golden OEIB era began immediately after the premature resignation of the former CEdO, the largest education budget in Oregon's history, and an extensive amount of reform legislation that had recently been passed but was not yet operationalized. Under CEdO Golden's leadership, the OEIB was refocused, quickly leading to continuous, explicit communication and broad distribution of leadership. The strength of the support for the OEIB's work enabled nimble action during and between monthly meetings.

Analysis summary. Thematic analysis of the OEIB's actions from beginning to end allowed for a systematic review of data throughout the bounded timeframe. This, in turn, helped to separate intentions from actions and revealed subtle shifts in the OEIB's focus with changes in leadership. Figure 8 presents a graphical summary of the key themes of OEIB actions across time.



Figure 8. Themes of OEIB actions across time.

The analysis provided information about—but was not sufficient to conclusively determine—the OEIB’s overarching theory of change-in-action. To identify this theory, it was necessary to adopt a holistic perspective and synthesize the dominant actions taken throughout the OEIB’s tenure.

Synthesis

Synthesis of the OEIB’s actions revealed that the overarching purpose of the OEIB reform (“why”) was grounded within the *education as workforce development* paradigm of economic logic, which was represented by the 40-40-20 goal. Synthesis further revealed that the “how” of the reform centered on what I call the *outcome-focused nexus*, in which the outcome-based budget, achievement compacts, and SLDS policies and related strategies were all focused on improving statutory outcome data metrics. In addition, the external policy mandates required by the federal NCLB waiver and the Race to the Top—Early Learning Challenge grant had a significant impact on the OEIB’s policy and strategy choices. The strategic plan created to guide action and serve as an accountability tool was not always explicit or aligned. Included in the strategic plan was a state-education-system-level *restructuring* and *equity* agenda to achieve the 40-40-20 goal. The following section details the synthesized findings. It is organized by the

following themes: education as workforce development, outcome-focused nexus, restructuring, equity, external policy influences, and strategic objectives. Table 6 provides an overview of analysis across time, cross-referenced with the analysis of OEIB actions through time, while Figure 9 provides a graphic model of the synthesis process.

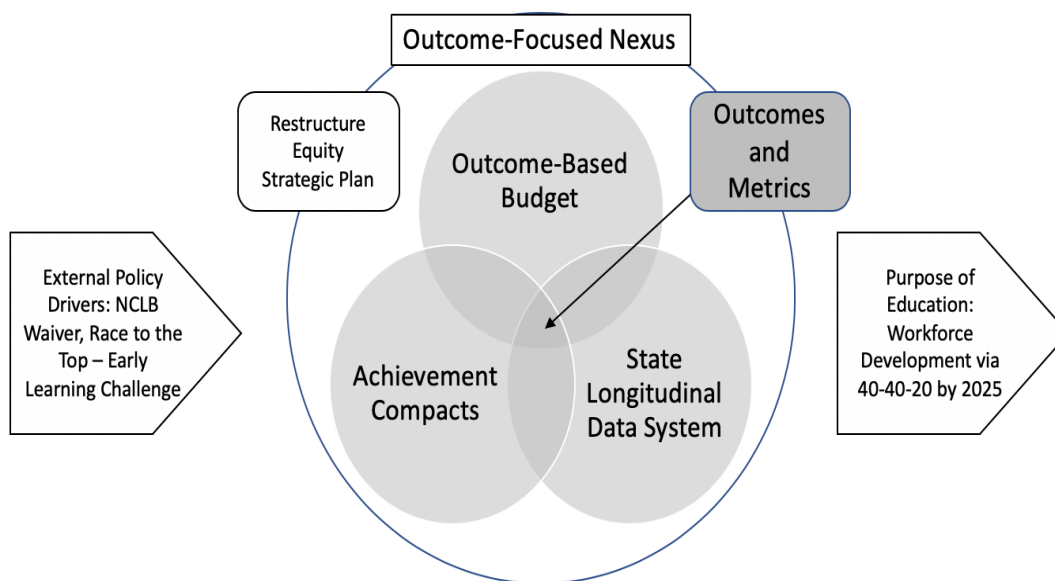


Figure 9. Overview of synthesis of OEIB actions over time.

Education as workforce development. The implicit, underlying, and overarching purpose of the reform during the OEIB’s tenure was not easy to uncover particularly given the volume of data, documents espousing values that were not tied to actions (*Oregon learns: Report to governor*), actions taken that had a different impact than intended (i.e., outcome-focused nexus), and the impact of actions that was not immediately disclosed in documents (Crew leadership; achievement compacts). References to workforce development, the purpose of the reform, were primarily found within the governor’s inauguration speech, which connected increased student attainment

of diplomas, certificates, and degrees (what became known as 40-40-20) to higher employment rates and pay. State expenditure was focused on developing Oregon's future workforce to ultimately lead to a reduction in social service expenditure and a stronger economy.

After outlining the concept of 40-40-20 in his inauguration speech, Governor Kitzhaber continued with the following remarks:

. . . we should live in a state that creates family wage jobs and career pathways that lead to those jobs; and where the average per capita income exceeds the national average in every region. I want to live in a state that looks like that—and I think you do too. And if together we commit ourselves to building that future, we can, over time, reverse our current trend of disinvestment in education, we can increase the per capita income of Oregonians, we can reduce incarceration rates and the cost of corrections and we can reduce the cost of human service programs . . . Building the economy is essential to all we want to achieve for our state. But we must also create a state government that supports the important public services on which our private sector economy depends; a budget that begins to shift our pattern of investments towards children, education and workforce development; and which is financially sustainable over the long term. (Kitzhaber, 2011a, para. 22)

Kitzhaber's Executive Order 11-02, which created the OEIT in the pre-OEIB era, further underscored the link between educational attainment and workforce development:

. . . by the time the children entering kindergarten this year graduate from high school—Oregon must be a state where our children are ready to learn before they get to school; where they have the resources and attention to learn and our teachers have the time and support to teach; where drop-out rates are steadily falling and graduation rates are steadily rising; where all Oregon high school graduates are prepared to pursue a post-secondary education without remediation; and where eighty percent of them achieve at least two years of post-secondary education or training. Meeting these goals is the best way to ensure that we live in a state that creates family wage jobs and career pathways that lead to those jobs. (Office of the Governor, 2011, para. 7)

The passage of S.B. 253 (2011) in the pre-OEIB era repealed the former public purpose for higher education and replaced it with the numerical 40-40-20 educational

goal for workforce development. This goal was known to be one of the most aggressive high school and college completion targets of any state in the country. While the target of 40-40-20 was intended to be a means to an end, it quickly became referenced as the main goal and purpose of the state education system. By the time the *Oregon Learns: Report to the Legislature* was composed, just one month after the confirmation of the OEIB members, 40-40-20 was front and center:

S.B.253 defines our goal: by 2025, we must ensure that 40 percent of adult Oregonians have earned a bachelor’s degree or higher, that 40 percent have earned an associate degree or post-secondary credential, and that the remaining 20 percent or less have earned a high school diploma or its equivalent. We refer to these targets as our 40-40-20 goal. (OEIB, 2011b, p. 1)

The 40-40-20 goal positioned the public education system as a workforce development pipeline. The term *40-40-20* quickly became shorthand for those implementing sweeping state level changes when referencing the purpose (“why”) of reform actions. Reaching 40-40-20 or showing progress toward it became the main focus of all change efforts, and references to the workforce were not prominent in the discourse.

Outcome-focused nexus. In this study, the central drivers of the reform are referred to as the outcome-focused nexus. Strategies, including the implementation of achievement compacts, development of an outcome-based budget, and establishment of the SLDS, all converged around and were driven by student outcomes, represented by specific, quantifiable metrics across the learning continuum. At first, this outcome-focused change strategy was conceptual and was positioned as investment in education. It stated that the OEIB should set outcomes and metrics to measure those outcomes; that

education entities should enter into agreements in which the entities projected improving stated outcomes in exchange for funding. The achievement compacts were positioned as a way to engage educational entities. The state would reorient the budget to include standard baseline funding as well as additional investment and incentive funding intended to accelerate outcome achievement. Furthermore, it stated that the SLDS would measure outcomes, calculate the ROI for additional legislative expenditures, and provide the necessary data to diagnose areas that require improvement. The SDLS was positioned as the key support system for the system. The actions taken to implement each aspect of the outcome-focused nexus are described in the following sections.

Outcomes and metrics. S.B. 253 (2011) tied workforce development to the 40-40-20 metric. With this metric set as the ultimate measure of the reform's success (or lack thereof), the OEIB set outcomes and metrics across the learning continuum to measure progress toward the 40-40-20 goal. In addition, S.B. 909 (2011) referenced support for the OEIB to develop an outcome-based budget, specifically one that includes funding to implement strategic initiatives designed to accelerate progress toward the state's goals. S.B. 1581 (2012) directed the OEIB to set outcomes and metrics across the learning continuum for use with achievement compacts, underscoring that metrics were to be assessed in a disaggregated manner to uncover the achievement gaps experienced by disadvantaged subgroups. Defined student outcomes were to drive the state budgeting process, and related metrics were to be measured by the SLDS. Determining the most meaningful, useful, and accurate outcomes and metrics did not appear to be a straightforward task, as evidenced by the shifts in recommendations and implementation

of the outcome-focused strategy across time. Table 11 provides an overview of the shifts in outcomes and metrics from the pre-OEIB era to the end of the OEIB's tenure.

The OEIT progress report first suggested a set of outcomes and possible metrics to use for tracking Oregon's progress toward 40-40-20. The pre-OEIB stakeholder group, LearnWorks, which was composed of educators and educational advocates, offered similar outcomes with multiple measures for each, including locally generated measures of progress, such as classroom assessments. *Oregon Learns: Report to the Legislature*, published in the early OEIB era, also offered conceptual outcomes and metrics. The first achievement compacts in 2012–2013 focused on a set of specific, simplified metrics that were relatively easy to measure and use to track progress toward stated outcomes on an annual basis. Over time, the number of metrics in all achievement compacts grew—at one point, there were 28—causing pushback from the field, as evidenced in the achievement compact research report completed in the Golden era.

CEdO Golden and the OEIB agency worked to approve a reduced set of achievement compact metrics, which are listed in Table 11, while identifying additional outcomes to be measured outside of achievement compacts by a scorecard that was partially aligned with the strategic plan. These outcomes included system outcomes, equity outcomes, educator-focused outcomes, and student outcomes (see Figure 7). Diversifying the definition of an outcome allowed for a broader set of options for the OEIB's strategic initiative outcome-based funding recommendations.

Table 11

Summarized Outcome Metrics Over Time

	Pre-Implementation Recommendations			Implementation Points	
	OEIT Report	Learn-Works	Oregon Learns	Early Crew	Late Golden
Early Learning Outcomes -Metrics	Solid Start Birth through 3rd Grade: Enter Kindergarten with skills to be successful -Reading at end of 1 st grade -Reading at grade level by 3 rd grade	Ready to learn by about 5: LearnWorks metrics diverse(too many to include in chart) Numeracy and literacy fluency by about age 9	All children enter kindergarten ready for school: cognitive, social, emotional behavioral Ready to apply math and reading skills by end of 3rd grade or age 9	Ready for school: Kindergarten Readiness Assessment Ready to apply math and reading skills: -3 rd grade reading & math proficiency -6 th grade attendance	Ready for school: Kindergarten Readiness Assessment More third graders read at or above grade level: -3 rd grade reading proficiency
Middle School /Early High School Outcomes -Metrics	Transition successfully between levels -On track for graduation by the end of 9 th grade	Ready for rigor by mid-teens	All move along the learning pathway at their best pace -Ready to think strategically	On track to earn a diploma -9 th grade credit number	More 9th graders finish strong -9 th grade on track with credits -8 th Grade Math
End of High School Outcomes -Metrics	College and career ready high school diploma -Earn college credits in high school -Graduate on time -Enroll in post-secondary	Ready for college or career entry by late teens with a full option diploma	All graduate from high school and are ready for college and career -With critical thinking, communication, collaboration, creativity	Ready for college and career training -Oregon diploma -College credit in high school -College enrollment	High school and college graduations increase -Increase five year cohort graduation rate

Table 11 (continued)

Pre-Implementation Recommendations			Implementation Points		
	OEIT Report	Learn-Works	Oregon Learns	Early Crew	Late Golden
Post-Secondary Outcome -Metrics	Post-secondary degree opportunities for globally competitive workforce: -Earn degrees -Employed, productive, engaged	Locally and globally competitive -Majority of learners obtain a post-secondary degree or certificate	All who pursue education beyond high school complete program -Responsible productive members of community	Ready to contribute in career and community -Higher education completion -# of degrees/certificates	More Oregonians ready for rewarding jobs -Increase degrees & transfers

Outcome-based budget. The idea to shift from a funding structure for education based on inputs (funding per learner) toward a structure based on outcomes (funding based on results) was presented in collaboration with ECONorthwest, a regional economic consulting firm. This was seen as a transformative and viable opportunity to begin reinvesting in the state's under-funded public education system. The model put forth by the OEIT in the Progress Report and the Governor's Oregon Learns Report offered stable operating funds to educational entities, regardless of their performance. Local education providers committed to work toward state goals in a one-page statement of key outcome improvement targets (which became achievement compacts), and strong performance was rewarded with a greater degree of operational flexibility from the state. Cost savings were realized by eliminating per-learner funding and setting an annual inflation rate for funding that was lower than the inflation of personal income so that gains over time could be shifted to other education funding streams. Sustainable funding

was the largest funding stream, and it was coupled with two other proposed streams: proficiency/outcome funds and strategic grants. Suggestions for proficiency/outcome funding included fixed payments for incoming English learners tied to their proficiency level, need-based college scholarships tied to high school performance, post-secondary payments tied to degree attainment or progress, and funding tied to collaboration across systems (e.g., high school and community college). Strategic grants, the smallest funding stream, was recommended across the learning continuum to encourage evidence-based practices that reached state-identified learner goals more quickly. Figure 10 graphically represents the OEIT's proposed budget model.

Initially, the discourse seemed to indicate that the OEIB was to develop the first recommended outcome-based 2013–2015 education budget within the context of a 10-year planning horizon. However, instead, the governor appointed the Education Funding Team, a separate entity, to complete the job in March 2012. The team was to carry the OEIT's budget model forward and create a 10-year education budget plan and make recommendations for the 2013–2015 biennium. The OEIB was asked to select the educational outcomes and metrics with which the outcome-based budget would be aligned (S.B.1581, 2012) as well as to select and implement the strategic initiatives for that portion of the budget (S.B. 909, 2011). The outcomes needed to not only align with the budget but also have the potential to be efficiently measured by the SLDS within achievement compacts and agree with the requirements of the NCLB waiver and Race to the Top—Early Learning Challenge grant.

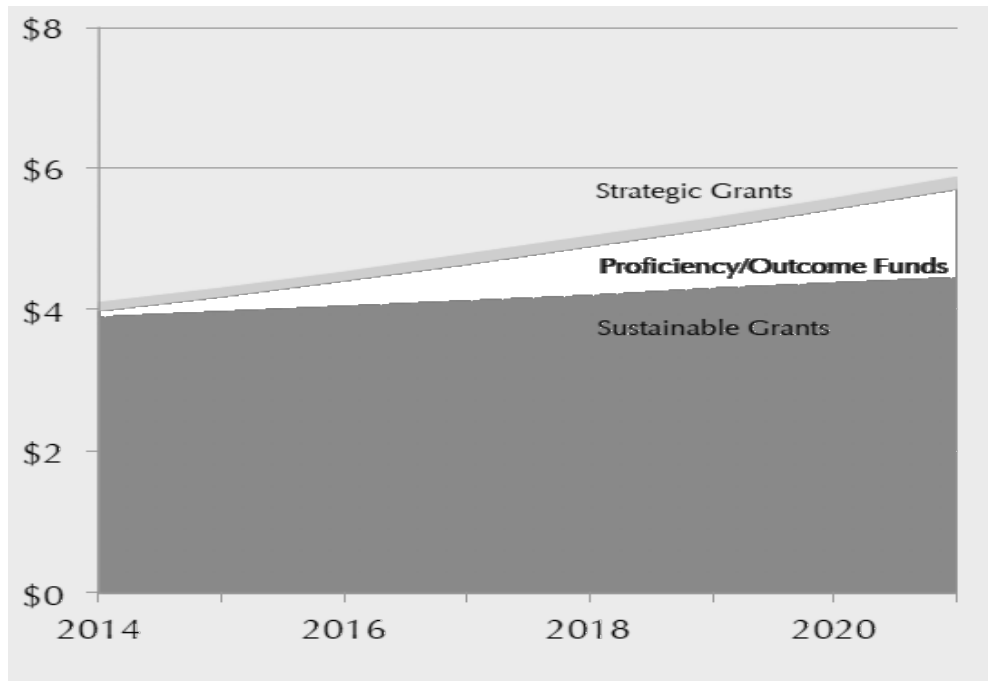


Figure 10. Model of the OEIB's budget. Annual education expenditures (billions) under baseline economic forecast. Source: OEIT (2011a, p. 18).

The outcome-based budget model was never fully realized, at least at the state level, within the OEIB's tenure. In 2013–2015, sustainable baseline funding, later referred to as sustainable capacity grants, was allocated to the state K-12 school fund based on average daily membership (ADM), or inputs, as was the case previously. However, the rate of growth of this funding stream was to be slowed. The total amount of funding provided to the K-12 public system did increase in comparison previous budgets (12.8%), and the estimated funding gap reduced from 38% to 31% according to Figure 11 (Joint Special Committee on Public Education Appropriation, 2013, p. 14). Given that state funding for K-12 education is the largest portion of the state budget

(40%), significant attention was directed here (see Figure 12; Joint Special Committee on Public Education Appropriation, 2013, p. 13).

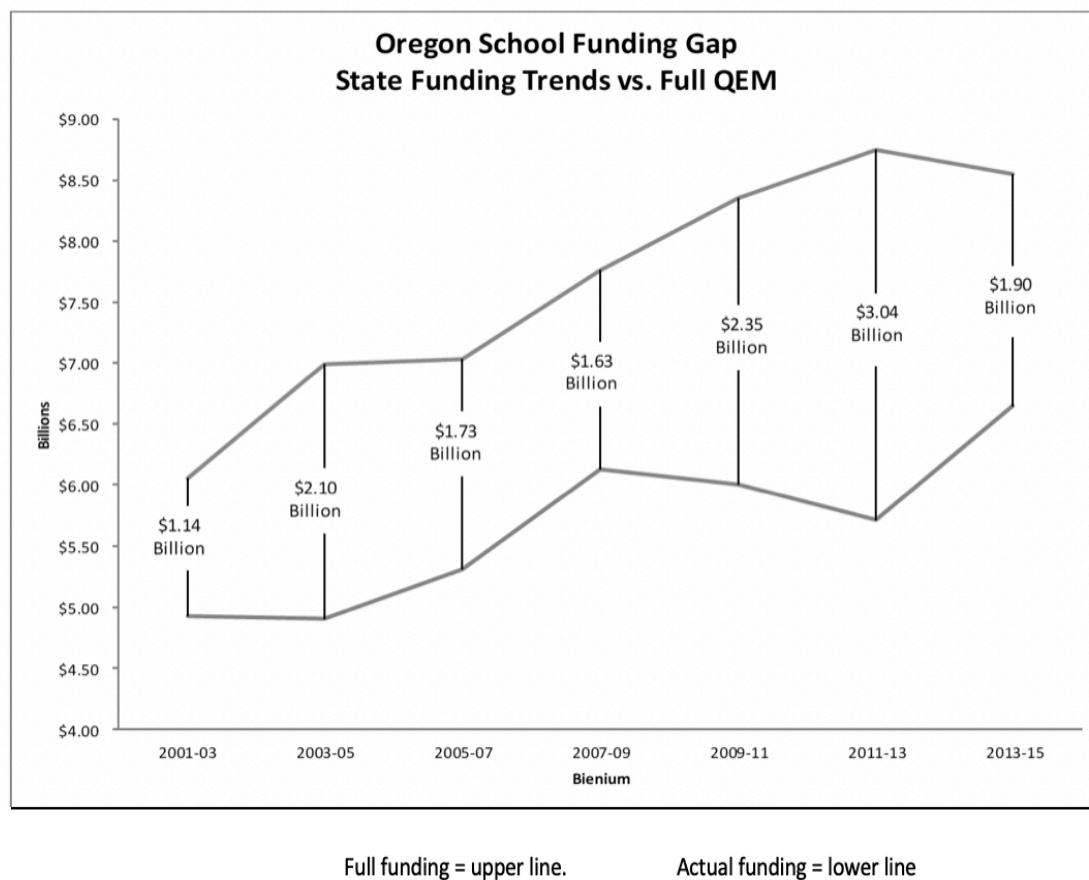


Figure 11. Trends regarding the gaps in school funding in Oregon. Source: Joint Special Committee on Public Education Appropriation, 2013, p. 14).

Other education spending included funds for the OUS, Department of Community Colleges and Workforce Development, and OSAC. A task force was charged with researching the best way to connect state funding for higher education to outcomes. The new coordinating boards, commissions, and divisions were funded as stand-alone

agencies (OEIB, HECC) or separate divisions under the ODE (ELC and YDC), although previously they had been funded by the Governor’s Office. In addition, a STEM council was created to assist the OEIB with increasing STEM achievement. A portion of the total education funding was designed with outcomes in mind, and it allocated \$74 million to the ODE and other educational entities to administer for the approved legislated strategic initiatives outlined in the budget plan. The proficiency/outcome funds, however, were not allocated in the 2013–2015 budget at first (see Figure 12).

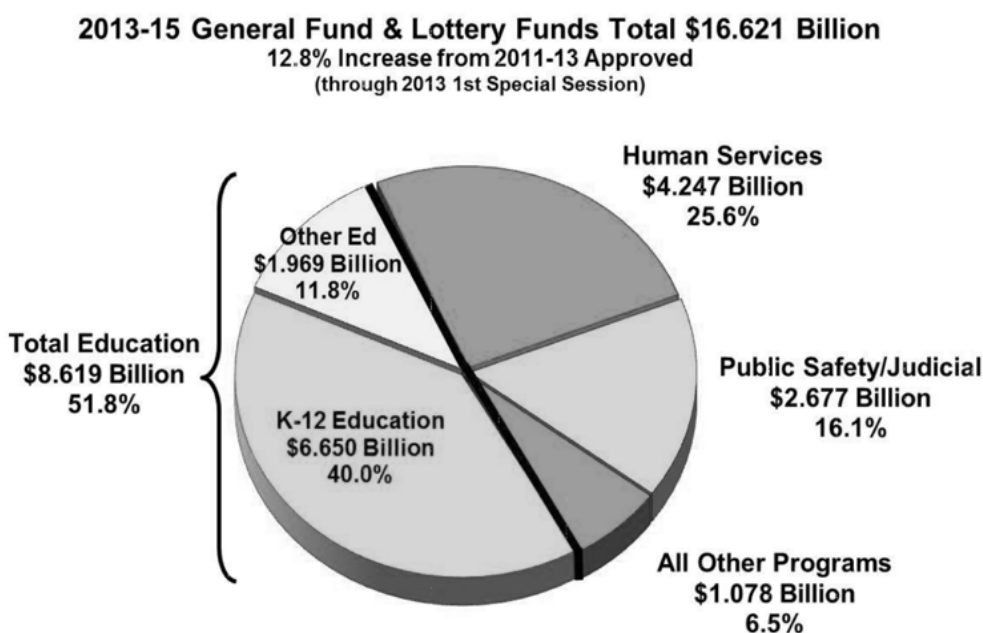


Figure 12. Oregon’s 2013–2015 general and lottery fund budget. Source: Joint Special Committee on Public Education Appropriation (2013, p. 13).

The OEIB forwarded two concepts for strategic initiatives to the legislature. These initiatives were intended to accelerate achievement of the stated target outcomes. H.B. 3233 (2013) created the Network for Quality Teaching and Learning and allocated

\$45 million in funding, and H.B. 3232 (2013) was allocated \$27.3 million to support three initiatives related to early reading (\$7.9 million), guidance and support for post-secondary aspirations (\$7.4 million), and connection to the world of work (\$12.5 million). This money was primarily distributed to the ODE for dissemination to related initiatives, usually via competitive requests for proposals. The funding for each area was spread across a multitude of initiatives, and different amounts were given to each initiative.

In preparation for the 2015–2017 biennium budget recommendations, in the Golden era the OEIB produced a report analyzing the previous biennium budget. Some incremental gains were made, but the OEIB indicated that more funding would be needed across the board if greater gains were to be realized. The board recognized that achievement compact goals regarding key outcomes were not sufficient to foster lasting positive change, and it emphasized that educational entities must have the courage to change their practices in order to meet state goals. It was also noted that the strategic initiatives selected by the OEIB to receive funding must be transformational (i.e., rapidly and dramatically impact change); it was not sufficient to simply supplement the baseline funding for existing initiatives.

Questions were raised regarding competitive requests for proposals for strategic initiatives and whether this was the best method to ensure balanced spending across the learning continuum and across the state. Progressive state-directed interventions for low-income (Title 1), low performing schools and districts needed to be designed to meet the

requirements of the NCLB waiver. In addition, an early learning database had to be created to interface with the developing K-12 and higher education portions of the SLDS.

Overall, it was suggested that, to ensure effective budgeting, the state needed to continue to balance support and accountability, conduct research, disseminate best practices, and conduct deep analyses of what was actually working.

Achievement compacts. Achievement compacts were described by the OEIB as the mechanism for transition to, and ongoing delivery of, the state's new outcome-based investment strategy, a mechanism for two-way communication between the state and local authorities, and the central unifying factor in the reform strategy. Achievement compacts were to align with the OEIB's stated outcomes across the learning continuum and the K-12 accountability requirements of the NCLB waiver application, and they were to influence Oregon's outcome-based education budget. Ideally, achievement compacts were to foster intentionality in budgeting at the local level, which would later drive the change desired by the state.

The passing of S.B. 1581 (2012) made it mandatory for all education entities in Oregon to submit achievement compacts in exchange for sustainable baseline state funding. Implementation, administration, and further development of the compacts were major responsibilities of the CEdO (who had not yet been hired at the time). The achievement compact format and requirements were quickly developed for the 2012–2013 school year during the early OEIB era. Immediately, local authorities working to complete the achievement compact forms raised many questions regarding, for instance, the validity of the provided historical data, definitions of metrics, and the method by

which the results were calculated. The K-12 entities also felt that the timeline given to complete the compacts was too short, the amount of work to complete was too great, and the process of projecting target improvements was disconnected from the reality of daily operations.

The first set of completed compacts arrived when the first CEdO began his tenure. Reports indicated that CEdO Crew felt that the projections for improvement offered by many K-12 school districts were too low and requested that they resubmit the compacts. A full analysis of the effectiveness of achievement compacts was not completed during Dr. Crew's tenure. However, during the Crew era, the OEIB required educational entities to appoint an achievement compact advisory committee to more broadly participate in the setting of achievement compact targets. The database team noted that historical data analysis and projections for the achievement compacts would require an outside contractor to plan the next stage of design and improvements to the SLDS system.

During the Crew era, the OEIB secured legislative funding for pilot RACs. The RACs were intended to build upon existing collaboration throughout the state by bringing together education institutions, non-profits, social service agencies, and businesses to pool their talents and resources in order to leverage and accelerate the work of achievement compacts. RACs were described as regional ground-level efforts, and they were modeled after successful national models and prior work to transform the health care system in Oregon. They were intended to be naturally sustainable, accountable, connected, and action oriented.

In September 2013, the new director of research of the OEIB, hired by Dr. Golden, prepared plans to conduct an analysis of the achievement compacts and in-depth interviews with representative groups. The research report was presented to the board in April 2014, and the first set of recommendations for updating the compacts was proposed to the CEdO in August. By January 2015, when the OEIB had its last full meeting, the CEdO had further revised the compact recommendations, and they continued to be contemplated by the board with no indication of approval.

Golden framed her view of the statutory role of achievement compacts in a regular communication letter to the field:

To me, the achievement compacts represent a handshake between the state and education institutions on the local level. The state sets the targets and the education institutions align budget priorities and practice to focus on those targets because collectively we know they offer the most significant opportunity for student success. In turn the state's portion of the handshake is to listen to feedback about the barriers students are experiencing in meeting those targets, and drive policy and investment recommendations to eliminate those barriers. (OEIB, 2014a, p. 3)

Three final recommendations for achievement compact revisions were presented at the final meeting of the OEIB: 3-year goals rather than annual goals, alignment of the K-12 achievement compact process with other reporting requirement so as to avoid duplication, and establishment of statewide focus areas for improvement, to be determined in consultation with diverse communities. The 3-year targets were intended to be strategic rather than predictive and to allow more time to work collaboratively with community partners and support student learning. The process recommendations were directed toward K-12 achievement compacts and intended to develop a single, comprehensive, and effective educational improvement process connected to the budget.

The collaborative development of statewide focus areas for improvement was intended to support collective action to improve a few targeted areas rather than all areas at once. OEIB staff were asked to transparently analyze and share data back to educational entities from K-12 compacts. It was suggested that the HECC should be responsible for working with higher education entities to improve the effectiveness of the higher education compact process. The OEIB and HECC expanded the definition of the middle 40 in the 40-40-20 goal to include apprenticeship certificates and worked to develop a clear definition of college and career readiness.

At the same time, the OEIB reported growing positive feedback and enthusiasm for voluntary RAC collaborations. One OEIB document indicated that the RACs were working in the way that was hoped for achievement compacts, alluding to the fact that RACs were being embraced by the community while achievement compacts were not. To this end, the OEIB worked to intentionally link the success of voluntary RACs with the less popular mandatory achievement compacts in order to gain approval for the recommendations for change.

SLDS. The SLDS was imagined to be a key resource for continuous improvement across the state. S.B. 909 (2011) directed the OEIB to “provide an integrated, statewide, student-based data system that monitors expenditures and outcomes to determine the return on statewide investments” (S.B. 909, 2011, section [1]4[c]). The board was to develop a new system or modify the existing data system by June 30, 2012 and ensure that it was maintained. Both the NCLB waiver and the Race to the Top—Early Learning Challenge grant aligned with the S.B. 909 (2011) directive. It was hoped that the completed data system would enable the OEIB and policymakers to quickly

obtain an overview of students' progress on outcomes across educational silos in order to identify trouble spots and successes linked to state expenditures. The SLDS was to guide data-informed, high-impact, cost-effective interventions and connected policies. In addition, it was hoped that parents, students, educators, and institutions would have access to personal- and institutional-level data of relevance in real time so that it could be used to adjust courses and achieve continued improvement related to the desired state outcomes.

The state had been working to develop and spent millions of dollars on education-related data systems for years prior to the S.B. 909 (2011). In 2005, the legislature had funded restructuring of the data system through the Kids Project, and from 2007–2011, the federal government funded the Oregon Data Project. Additional grants awarded to work on the data system included the Oregon Formative Assessment Resource from 2009–2012 and the federal ALDER grant, which included integration of early learning data from 2010–2013. Initially, little new funding was appropriated specifically to complete the SLDS.

It was quickly recognized by those involved in developing the database that completing it as described in S.B. 909 (2011) would not be simple; the early learning system required data that either had not been collected or was partially collected and spread across various agencies. In addition, K-12 data were not connected to early learning or post-secondary data, and no data were tied to expenditures, making it challenging to track ROIs. Furthermore, laws related to FERPA (Family Education Rights and Privacy Act of 1974) limited access to longitudinal data systems, the Oregon Identity Theft Protection Act of 2007 regulated how social security numbers could be

stored, and HIPAA (Health Insurance Portability and Accountability Act of 1996) pre-kindergarten data required statutory support. In short, more expertise and resources to advance the database work were needed, beginning with a more defined and intentional plan.

Dr. Crew was hired at CEdO at the time that S.B. 909 (2011) indicated the database should be complete. While some work had been completed, a request for a proposal had been issued and bids were collected to contract a company to create a plan for \$100 thousand. As Dr. Golden began her tenure as CEdO, the strategic plan regarding the SLDS objective was updated from competing the database to having a functional database. By the time CEdO Golden and the OEIB revised the strategic plan in 2014, the objective for the SLDS was to generate a business case for why it was important to create the SLDS. The trend of reducing expectations indicated underestimation of the complexity required for the database to play the projected role in driving students' outcome achievement.

In January 2014, the contracted plan for next steps for the database was completed, and the OEIB staff presented a business case outlining the choices for moving forward and the consequences of doing nothing. The business case outlined continuing problems with the SLDS, including the fact that policy makers were still not able to measure the effect of investments, data remained siloed across disconnected systems, and students and families continued to lack access to their own progress. Furthermore, the plan included actions to generate a more accurate ROI calculator for policymakers. The OEIB approved a 3-year plan to build a federated system that provided support to the ODE and HECC and generated personal education records in each system that could be

unified in a third system, ensuring the security of student data. The OEIB hired a director for the SLDS project and moved forward with efforts to secure funding for the federated system.

Without the SLDS, CEEdO Golden focused the OEIB on creating the scorecard for key outcomes. The scorecard used available data to reflect annual progress on outcomes adopted by the OEIB and provide status updates on key strategies. The key strategies included revised student, equity, educator, and system outcomes. Figure 13 provides a sample of data obtained by the scorecard.

Outcome-based nexus: Summary. The outcome-based nexus was a key driver of the reform strategy-in-action. The goal of a transformative outcome-based budget, which was tied to achievement compacts as a mechanism for implementation and the data system as a panacea for ongoing improvement, was not realized during the tenure of the OEIB. Metrics set by the OEIB along the learning continuum shifted in focus and quantity. While adaptability in regard to metrics had some positive aspects, each shift had a ripple effect, impacting SLDS data collection, achievement compact reporting, and budget allocation. This not only increased workloads across the system but also created challenges regarding the reporting of change over time. The workload cost-benefits and the utility of achievement compacts as mechanisms to drive change were called into question as education entities began to engage in the mandatory activity of completing paperwork in exchange for baseline school funding. Concerns were raised regarding both the disconnect from and overlap between compact target-setting and existing continuous improvement requirements. In addition, questions regarding whether the metrics truly

represented and measured the desired outcomes were raised. While education funding increased overall, the impact of expenditure on strategic initiatives intended to drive rapid student achievement were not adequately researched or reported, leading to questions about the effectiveness of the distribution strategy. Finally, the projected central utility of the SLDS could not be achieved during the tenure of the OEIB due to multiple issues related to the complexity of implementation. In summary, while the outcome-focused nexus was a key driver of the reform agenda, multiple interconnected details contributed to the lack of strategy realization.

KEY EQUITY OUTCOMES

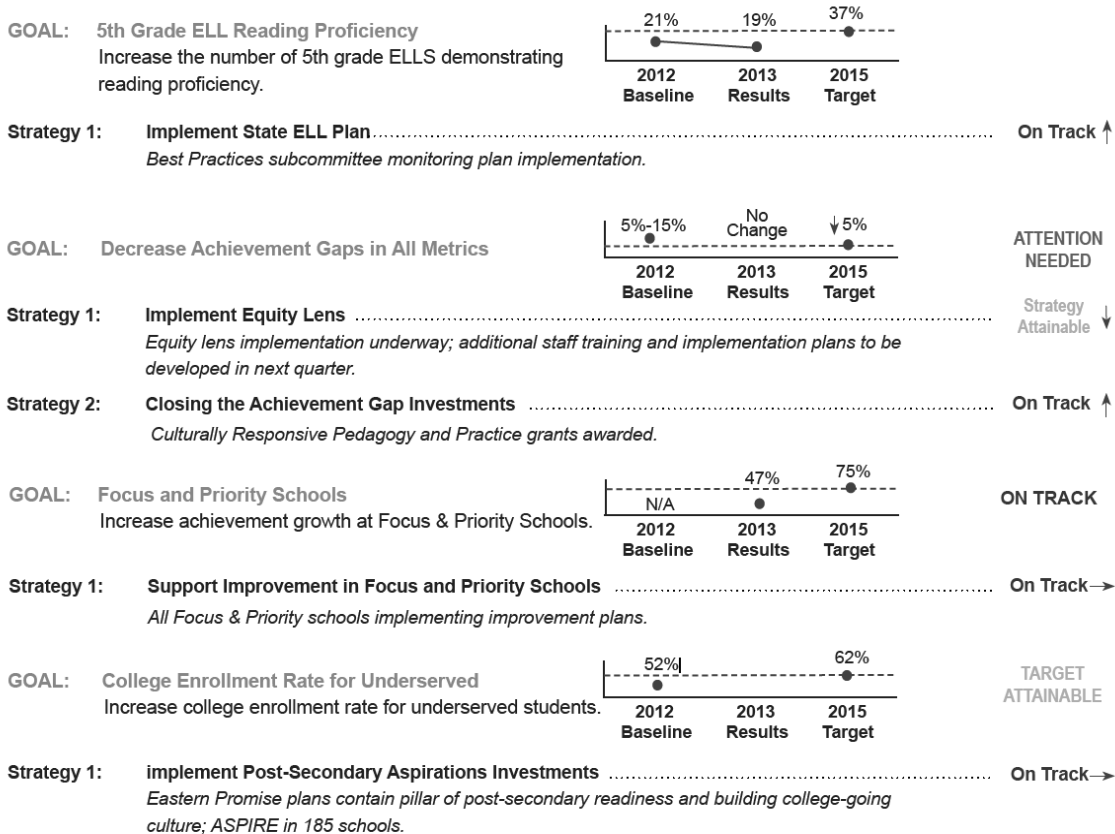


Figure 13. OEIB scorecard selection—key equity outcomes. Source: OEIB (2014a, p. 39).

Structure. Design and implementation of the P-20 structure and creation of the SLDS remained key objectives of the OEIB throughout its tenure. During the pre-OEIB era, Governor Kitzhaber stated that the state system for governance of education was siloed from pre-kindergarten through post-secondary education and into the workforce and that it lacked coordinated planning, communication, and budgeting. Claiming a projected gap between future jobs and future workforce skills in Oregon, the governor made a case for alignment of available workforce individuals to projected availability of jobs, which included restructuring state-level systems for centralized, seamless coordination, to help meet the state's goals. S.B. 909 (2011) created the OEIB and ELC and tasked the OEIB with designing and implementing a seamless governance structure. Within the same bill, the OEIB was tasked with designing and implementing the SLDS. S.B. 242 (2011) created the HECC within the Governor's Office with no dedicated funds to support it at the time. A parallel task force was created to analyze higher education students' and institutions' success to determine the best practices for acquisition of basic skills and career preparation, higher education outcome-based funding models, and barriers to student success. Kitzhaber directed the incoming OEIB to design a flat state organizational structure that would meet the needs of the education system and students, understand the function of independent local boards, and develop one entity to direct and coordinate the university system. Figure 14 presents the initial conceptual model for the redesigned state education system, including a completed data system and achievement compacts that connect state-level investment with implementation of a delivery system.

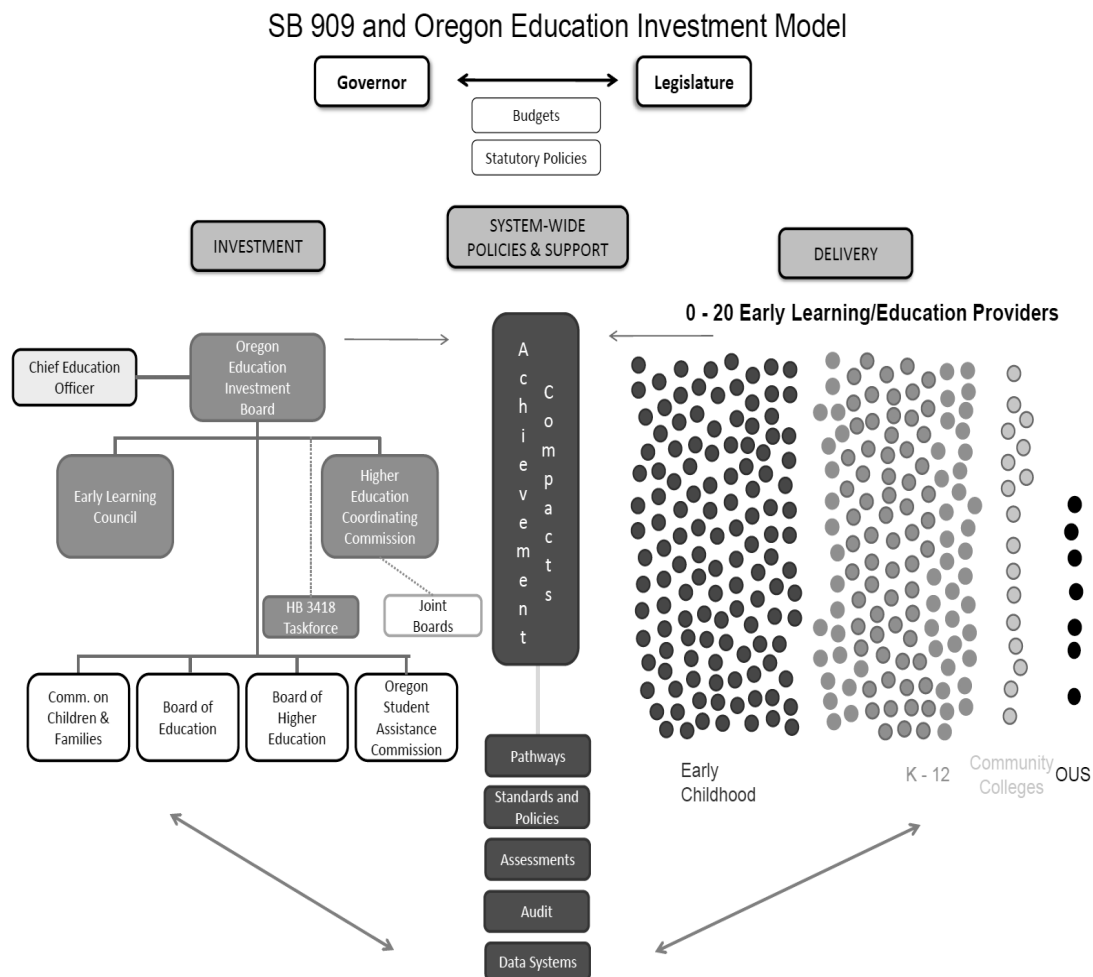


Figure 14. 2011 model developed in the early OEIB era. Source: S.B. 909 workgroup (2011).

In 2012, S.B. 1581 (2012) gave the CEEdO direction and control over other education officials, resulting in a shift toward a seemingly more hierarchical system. S.B. 1538 (2012) expanded and clarified the duties of the HECC and provided funding, making the HECC independent of the Governor’s Office. H.B. 4061 (2012) created a special committee to analyze higher education governance and the functions of each board, and it was required to submit recommendations for restricting the higher education

system to the legislative assembly prior to the beginning of the 2013 session. H.B. 4165 (2012) created the YDC to focus on out-of-school youth and abolished the Commission on Children and Families. In June 2012, the elected superintendent resigned 2 years early, making the governor the superintendent. As per S.B. 552 (2011), the governor appointed a deputy superintendent of public instruction to take over direction of the ODE. During these efforts to streamline the state-level education system, the number of related boards, commissions, and leadership positions increased. The governor tasked the OEIB, with the help of the CEo, with reducing the number of positions and truly streamlining the structure. The SLDS was omitted from the organizational structure chart, although it remained a key statutory objective of the OEIB. Given the SLDS's close functional ties to budget funding and achievement compacts, it can be assumed this objective was related to the connection between state organizations and education entities regarding funding, rules, and compacts. Figure 15 represents the state-level structure after the 2012 legislation was passed.

The final restructuring of the state-level education system during the tenure of the OEIB is represented in Figure 16. Legislation proposed in 2013 created both the Youth Development Division (H.B. 3231, 2013) and the Early Learning Division (H.B. 3234, 2013) within the ODE and moved the YDC and ELC to these divisions, respectively. The Office of Community College and Workforce Development was under the authority of the HECC, rather than the State Board of Education, and the OSAC was abolished and replaced with Office of Student Access and Completion, which was also under the authority of the HECC (H.B. 3120, 2013). Finally, S.B. 270 (2013) enabled the creation

of independent boards for three state universities and stipulated that the State Board of Higher Education should oversee universities without independent boards. Both the OUS and the State Board of Higher Education were eventually phased out by 2015, and their duties were assumed by the HECC.

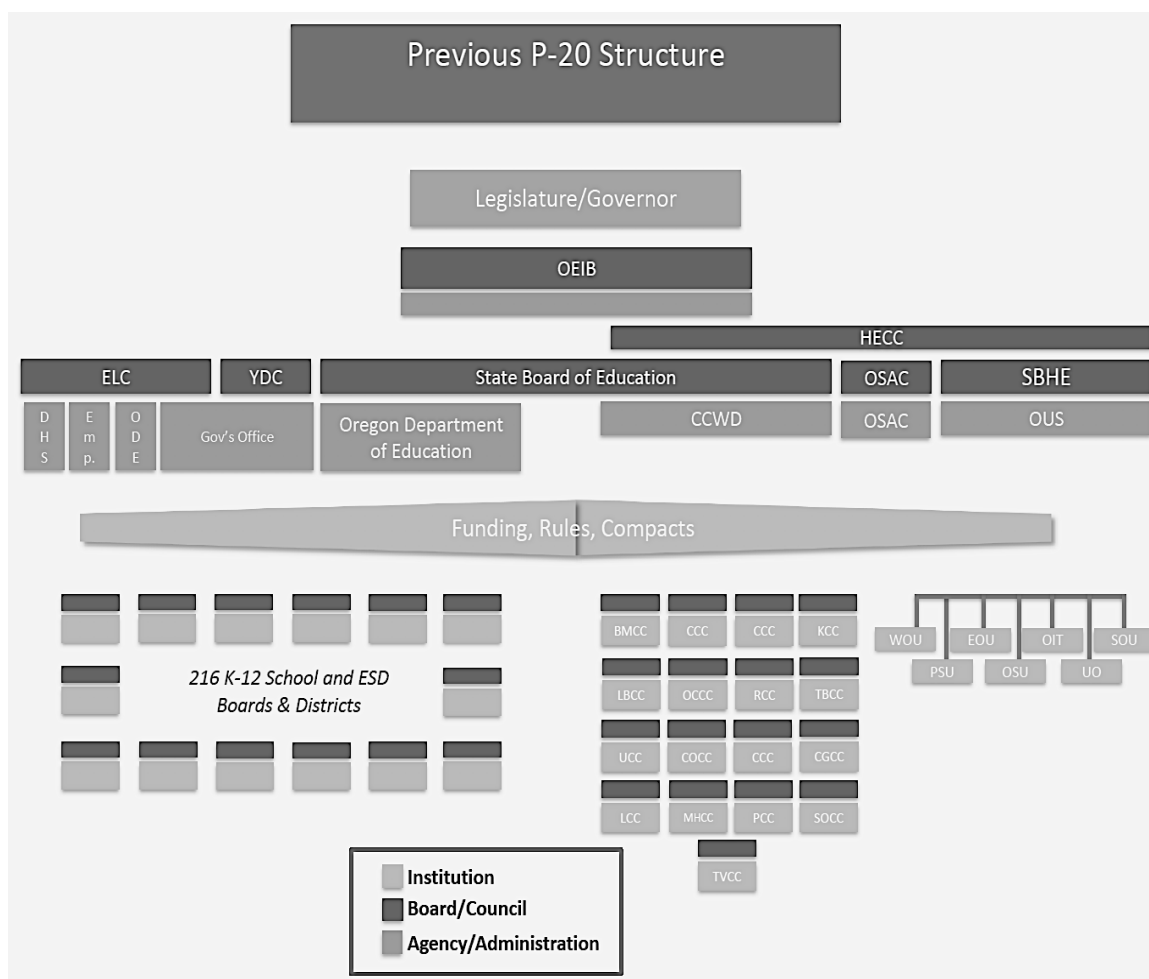


Figure 15. 2013 OEIB structure (middle). Source: OEIB (2013c, p. 13).

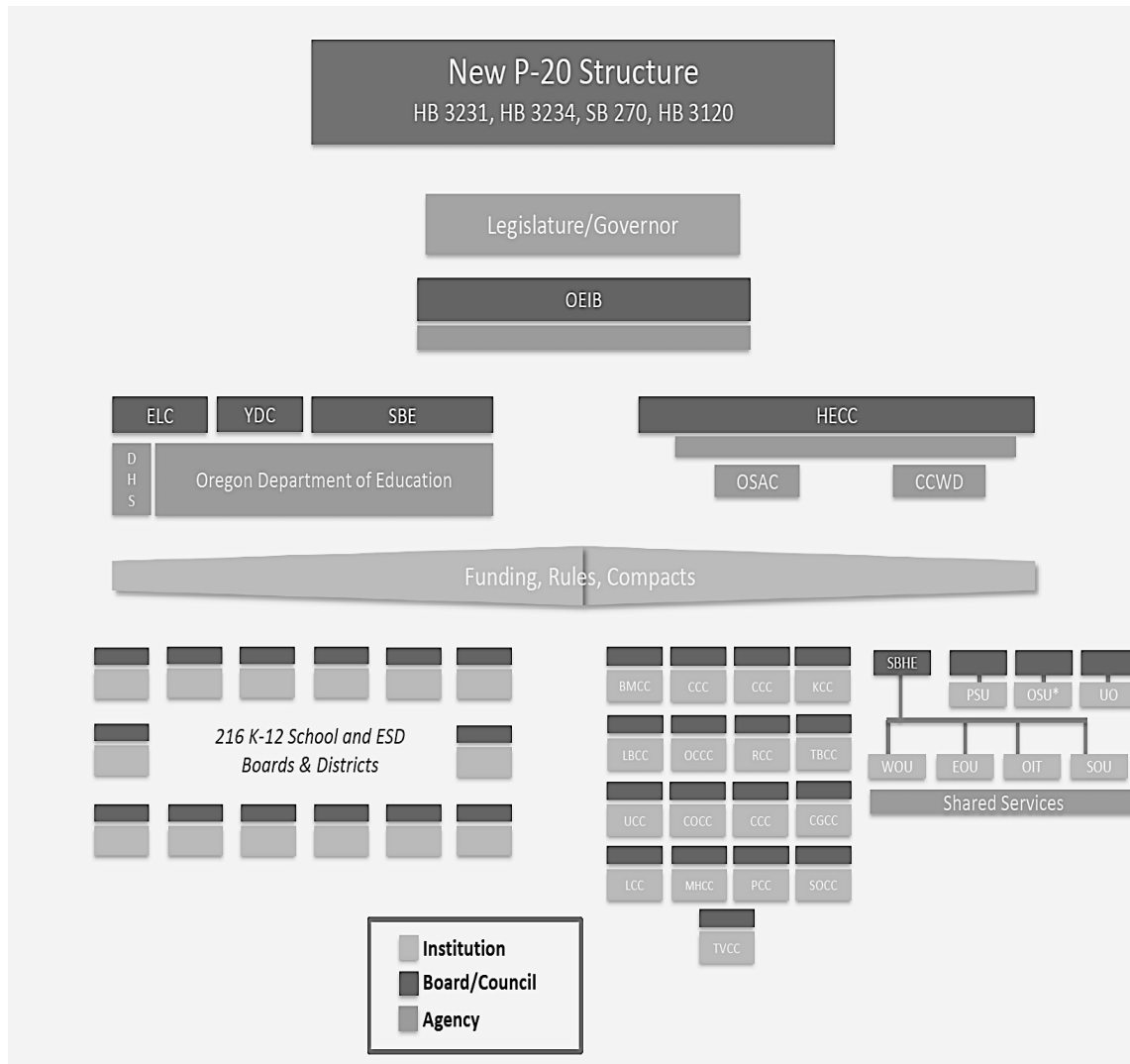


Figure 16. 2013 OEIB structure (end). Source: OEIB (2013c, p. 14).

The OEIB's planned actions regarding structural changes shifted from recommending structural changes during the Crew era toward facilitating and supporting communication and alignment between the newly changed boards, commissions, and agencies in the Golden era. The physical restructuring of the state-level education system represented a series of change actions that shifted and centralized state-level power and

organizational structures and led all education entities to focus on and be accountable for reaching the workforce development metric of 40-40-20.

Equity. The theme of equity was present throughout the tenure of the OEIB, but it became a greater focus over time. Figure 17 outlines the role of equity over time as it became a more central focus within the OEIB. Actions supporting equity remained largely intended to achieve the state’s 40-40-20 workforce development pipeline.

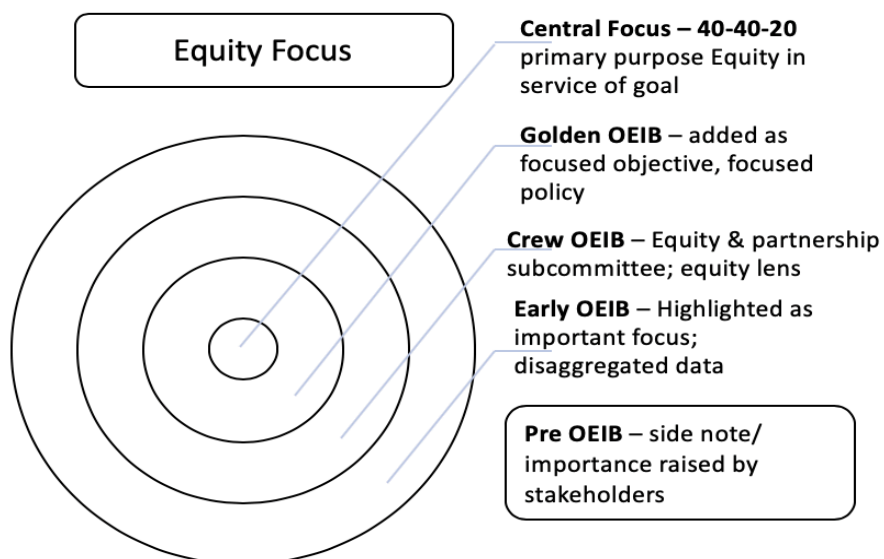


Figure 17. Role of equity in OEIB.

Pre-OEIB planning documents at the state level lacked explicit references to equity and instead referenced “all learners.” However, feedback from stakeholders during this early stage indicated that equity must be added as an explicit and essential core focus of the reform if the state’s aggressive goals were to be reached.

Once the OEIB was officially established, it adopted an equity stance, as evidenced by *Oregon Learns: Report to the Legislature*:

Committing to equity: Oregon must commit to success for all learners, including all racial and ethnic groups, economically disadvantaged students, English language learners, and students with disabilities. To meet our 40-40-20 goal, we need every group of learners to maximize their potential. We simply cannot meet our vision for Oregon if the most educated Oregonians remain disproportionately white, native English speakers, relatively affluent and without disabilities. The very promise of the American Dream, of opportunity available to all who strive for success, demands that we include all Oregonians in our goal, and that we very specifically and intentionally plan for an education system that meets our varied students' needs equitably and effectively. (OEIB, 2011b, p. 21)

At this time, equity-in-action primarily involved the creation of achievement compacts with disaggregated data. The NCLB waiver mandated that disaggregated data be reported in order to track the closing of achievement gaps.

During the Crew OEIB era, the Equity and Partnerships subcommittee was created to focus on equity issues related to the reform efforts. Then, the governor joined the subcommittee, which began to work in accordance with the Equity Lens after it was approved by the board. The Equity Lens aimed to provide a common vocabulary and protocol for resource allocation and evaluation of strategic investments. The OEIB encouraged all government agencies to adopt the Equity Lens. Despite its growing focus, equity was not included as a primary strategic objective within the OEIB's approved strategic plan during the Crew era. The only explicit reference to equity was within the strategic objective of designing and implementing initiatives to improve student achievement, including systems and cultures that address equity and result in learning environments that address the needs of all learners.

Within the Golden OEIB era, the above objective was removed from the strategic plan, leaving no part of the plan that explicitly focused on equity. However, the OEIB scorecard, which contained a collection of measurable equity outcomes, was created during this time. Its outcomes included fifth-grade English learner reading proficiency, decreased achievement gaps in all metrics, improvement of Title 1 priority schools (bottom 5%) and focus schools (bottom 15%), and increased college enrollment rate for under-served students. The new educator outcomes also included an equity-focused outcome: increasing the number of non-white Hispanic or non-native English-speaking educators. In addition, the Equity and Partnership subcommittee was refocused to ensure implementation of the Equity Lens and develop recommendations for investments to support youths without high school diplomas. The OEIB budget recommendations for 2015–2017 continued to focus on workforce development, but they were followed with a statement on the “equity imperative” if the state hoped to reach its 40-40-20 goal. Finally, while not directly related to the OEIB, it was during the Golden era that the first ODE Office of Equity, Diversity, and Inclusion was established, which led to a more permanent focus on educational equity within the state.

Federal policy inputs. Oregon’s successful applications for the voluntary federal NCLB waiver and the competitive Race to the Top—Early Learning Challenge grant played a role in guiding OEIB strategy and related policies for change. Decisions to apply for both the waiver and grant were made with the authorization of the governor outside of and prior to the creation of the OEIB. The two funding streams required that

all reform strategies of the OEIB and associated commissions, councils, and agencies aligned with the principles and agreements made within the applications.

NCLB waiver. In March 2010, the Elementary and Secondary Schools Act (known as NCLB [2002]) was overdue for reauthorization, so President Obama released his revised version of the act, entitled A Blueprint for Reform (U.S. Department of Education, 2010). The reauthorization was not passed by Congress in a timely manner, so the federal government issued a voluntary application for a waiver from the NCLB to offer states relief from the escalating targets and steep financial sanctions it mandated. In the first year, the waiver was estimated to save the state \$35–45 million in K-12 Title-1-related sanctions, funding that was primarily intended for transportation and tutoring. This relief was provided in exchange for following four federal principles: (a) ensure that all students are college- or career-ready, (b) create differentiated recognition, accountability, and support, (c) support effective instruction and leadership, and (d) reduce duplication and unnecessarily burdensome reporting requirements (ODE, 2012). The time at which the waiver was granted meant that much of the implementation of these requirements fell within CEdO Golden's tenure.

There were quite specific guidelines for applying the four federal principles. Students were to be assessed annually from third through eighth grade with standardized tests, but the tests were to be realigned to the Common Core State Standards and English learner proficiency standards. College enrollment and credit accumulation rates for all students and subgroup in each K-12 district and school were to be publicly reported annually. Title 1 schools were required to be rated, and schools were to be publicly

identified as priority schools (lowest 5%), focus schools (at least 10% of the total contribution to the achievement gap), or reward or model schools (highest-performing schools with the most progress in achievement; ODE, 2012). It was required that federally defined turnaround principles be implemented in priority schools under the direction of the state, while the highest-rated schools were to be rewarded with less government oversight. Teacher and administrator evaluations were required to use student achievement growth data from the previous year as a measure of effectiveness, and the state was to continue to reduce unnecessary or duplicate reporting requirements.

Race to the Top—Early Learning Challenge. The federal Race to the Top—Early Learning Challenge grant was a part of a competitive grant program that offered winning states funding in exchange for following five federally defined guiding principles: (a) successful state systems, (b) high-quality, accountable programs, (c) promotion of early learning development and outcomes for children, (d) a great early childhood education workforce, and (e) measured outcomes and programs. The grant infused \$30 million into Oregon’s early learning system. To close the achievement gap, the grant was used to support the Oregon early learning system reform, enabling the creation of the Kindergarten Readiness Assessment, alignment of early learning to Head Start standards and the K-12 system, implementation of a tiered quality rating and improvement system for early childhood providers, creation of early educator workforce competencies, and development of a data system to provide information across all domains of early learning.

Because Oregon’s applications for these two funding streams were successful, early learning and K-12 were subject to many mandates regarding high-stakes external accountability and a carrot-and-stick approach to inducing change, which involved costly design, adoption, implementation, and reporting requirements. At times, the federally mandated policies and related strategies were at odds with the OEIB’s previously preferred direction. One example was the OEIB’s “tight-loose” policy framework strategy, which quietly changed to a “tight-loose-tight” strategy to accommodate federally required state interventions at the lowest-performing priority schools.

Strategic objectives. The OEIB’s strategic plan guided the daily work and objectives of the board and served as an accountability tool. The OEIT recommended that such a plan should be one of the first actions of the OEIB, and so as soon as Dr. Crew took on the role of CEEdO, one of his first responsibilities was to develop the plan. In February 2013, after numerous revisions, the first OEIB strategic plan was approved by the board. It was later updated by Dr. Golden when she was serving as interim CEEdO and again once she was officially hired.

The primary objectives of the strategic plan—state-level structure, policy, budget alignment, communication, and initiatives—largely remained the same during the tenure of the board but shifts in the action directives related to the objectives changed over time. Each objective is overviewed below, and Table 12 outlines the shifts in the strategic plan and associated objectives over the OEIB’s tenure.

Table 12

Strategic Plan Shifts Over Time

02/2013 CEdO Crew	09/2013 Interim CEdO Golden	01/2014 CEdO Golden
<p>Complete design & implement P-20 Structure</p> <ul style="list-style-type: none"> -Specify how to operationalize P-20 governance & structure -Implement aligned standards/assessment/ supports for P-20 -Create SDLS 	<p>Complete design & implement P-20 structure</p> <ul style="list-style-type: none"> -Governance & state agency structure that supports seamless P-20 system -Functional P-20 longitudinal data system developed 	<p>Design & implement birth-college/career structure</p> <ul style="list-style-type: none"> -Ongoing system of communication / alignment across birth to college and career agencies -Oversight of development of business case for SLDS
<p>Affect policies for initiatives & “tight/loose direction”</p> <ul style="list-style-type: none"> -Analyze, write, & advocate policies that support achievement -Create policy framework consistent with “tight/loose” -Review current policies that lessen compliance 	<p>Adopt strong policy framework</p> <ul style="list-style-type: none"> -Implement policies to support student success -Provide “tight loose” direction 	<p>Adopt strong policy framework</p> <ul style="list-style-type: none"> -Policy & research unit -RAC’s identify policies -Adopt policy agenda -Develop partnerships & accountability across college & career
<p>Create outcome-based budget aligned to initiatives</p> <ul style="list-style-type: none"> -Create/monitor/revise strategic plan -Support budget development linked to strategic initiatives 	<p>Create outcomes-based budget aligned to initiatives</p> <ul style="list-style-type: none"> -Invest in key student outcomes -Strong strategic plan with outcomes and metrics 	<p>Create outcomes-based budget aligned to initiatives</p> <ul style="list-style-type: none"> -Create recommendations for outcomes-based budget tied to strategic initiatives & key outcomes
<p>Work to build an informed & engaged public</p> <ul style="list-style-type: none"> -Create channels of two-way communication -Use achievement compacts to establish regional collaborations -Support learning organizations in creating strategies, tools, practices 	<p>Work to build an engaged & motivated public</p> <ul style="list-style-type: none"> -Create channels of two-way communication with stakeholders & public to build excitement/ understanding of strategies and opportunities for engagement 	<p>Work to build an engaged & motivated public</p> <ul style="list-style-type: none"> -Develop key communicator network -Engage/activate diverse communities, parents and students
<p>Design & Implement initiatives to improve student achievement</p> <ul style="list-style-type: none"> -Initiatives that directly affect student learning -Systems & cultures address equity -Accountability systems -Impact analysis of initiatives 	<p>Design & implement high-impact, cost effective initiatives for all</p> <ul style="list-style-type: none"> -Ready for school, math & reading skills -On track to earn diploma -Ready for college/career & contribute in community -Supported educators -Address equity 	<p>February 2014 Score Card on Key Outcomes</p> <ul style="list-style-type: none"> -Student Outcomes -Equity Outcomes -Educator Outcomes -Systems Outcome

Structure. Restructuring the state-level education system of governance, accountability, and oversight remained a key strategy and focus of the OEIB and was one of the more visible and explicit changes made by the reform. The restructuring was supposed to lead to more alignment regarding standards, assessment, and funding while the OEIB served as the central coordinating oversight body. However, tensions existed between the desire to coordinate and the desire to avoid a top-down authority-driven system. With the governor serving as the chair of the OEIB, which oversaw the HECC, ELC, and YDC, and as the superintendent of public instruction, a position that has authority over the ODE, a significant amount of power had been shifted to the Governor's Office.

The strategic plan restructuring objective, which included alignment of standards and assessments with the SLDS, was mentioned in the NCLB waiver and RTT-ELC grant application. The alignment directive was also included in Crew's plan, but it was removed when Dr. Golden was serving as interim CEo (only to be added back in later). The SLDS remained a part of the restructuring objective, but with diminishing expectations.

Policy. The initial OEIB policy-related objective directed the OEIB to affect policies for initiatives and tight-loose direction. Both the concepts of strategic initiatives and the "tight-loose" direction originated during the pre-OEIB era. During the Crew era, the OEIB was focused on policies intended to affect and support student achievement initiatives and reduce the burden of mandated compliance. In doing so, the OEIB aimed to operationalize a "tight-loose" policy framework. Its policy was focused on setting

desired/required educational outcomes (tight) while allowing educational entities to decide how they would meet the state-determined outcomes (loose). In other words, the policy was heavy on targets and light on implementation strategies and support.

In the Golden era, the policy-related action objective was modified to read: *adopt a strong policy framework* and the directives for the OEIB became more actionable.

Adoption of a legislative administrative policy agenda became a priority. To do so, the OEIB created a policy and research unit to aid with analysis of prospective and existing education policies recommended by the OEIB or others. In addition, engagement of the field to help identify policies that support student success was explicitly included in the strategic plan. The “tight-loose” policy framework was not referenced in the 2014 plan as the NCLB waiver required state intervention in low-performing schools. Instead, in meeting documents, the OEIB policy framework was referred to as “tight-loose-tight.”

Budget alignment. The OEIB strategic objective related to budget—“create an outcome-based budget aligned with initiatives”—remained static. While initial documents seemed to indicate that the OEIB would create the state education budget, the governor appointed the Education Funding Team to lead this task. The legislature approved the final budget. The OEIB was responsible for determining the outcomes and aligned strategic initiatives for the Education Funding Team’s recommended budget, but it was not responsible for creating the budget itself. The objectives in the Crew era reflected the uncertainty of the OEIB’s role regarding the budget design. CEEdO Golden updated the directive to “create recommendations for outcome-based budget specifically tied to strategic initiatives and key outcomes,” which accurately reflected the OEIB’s

budget-related actions throughout its tenure. By creating the OEIB scorecard, which contained a wide array of key outcomes, the OEIB was able to expand the recommendations given to the Education Funding Team.

Communication. Communication was another objective that originated from the pre-OEIB era. This objective shifted slightly from “building an informed and engaged public” to “building an engaged and motivated public” between the Crew and Golden eras. Communication with and engagement of stakeholders remained a focus of the strategic plan throughout the OEIB’s tenure. During the Crew era, achievement compacts were explicitly referenced in the communication objective as a directive for the OEIB to build engagement through the establishment of RACS, but the references to compacts were removed from the plan during the Golden era. Prior to being funded as its own agency, the governor’s communications director supported the OEIB’s communications plan, which was focused on outreach, including speaking engagements, earned media, social media, and a website, to build awareness. However, the communications director halted the plan during the 2013 legislative session. No specific reason was mentioned in the examined documents.

Once the OEIB was a standalone agency, CEEdO Golden appointed a dedicated communications director. After extensive stakeholder dialogues, a communication report and formal plan were generated. These focused on making use of existing work to reach out through, for example, strategic initiatives, legislators, education leaders, parents, and student groups, including parent teacher associations and student advisory groups. The OEIB was directed to develop a key communicator network and engage and motivate

diverse communities, parents, and students. Dr. Golden communicated about key issues via monthly personal messages to the public, and she submitted an almost-monthly update on every action she took regarding the strategic plan objectives and directives to create ongoing, transparent, and accessible documentation of her focused work.

Initiatives. The objective of initiatives shifted the most when the strategic plan was being updated. In the Crew era, initiatives were associated with standalone objectives. The objective “design and implement initiatives to improve student achievement” was further defined by the new CEdO and staff team as “establishing and conducting the protocols and process of distributing resources to the field.” In her interim role, Dr. Golden added the qualifiers “high-impact” and “cost-effective” to the design and implementation of initiatives and explicitly indicated that the initiatives were intended to support all students. As CEdO, Golden removed this objective and combined it with the budget objective.

The initiatives objective was the only strategic objective that included an explicit reference to OEIB action focused directly on equity. In the Crew and interim Golden eras, the OEIB was directed to address equity, which resulted in learning environments that addressed the needs of all learners. By dropping the initiative objective, equity was no longer explicitly mentioned in the strategic plan, but the scorecard, which was released at the same time, contained specific tracked outcomes related directly to equity, including fifth-grade English language learning proficiency, decreased achievement gaps on all metrics, a focus on priority schools, and college enrollment rates for under-served students.

The strategic plan was designed to focus on and represent the scope of the OEIB's work. Reviewing the plan's objectives holistically through time revealed some gaps. In contrast to the outcome-focused nexus of the reform strategy, there appeared to be non-explicit connections between the OEIB's work and the intertwined roles of outcomes, the budget, compacts, and the data system. Student outcomes were only listed once under the initiative objective. Achievement compacts, which at one point were claimed to be the central unifying element of the reform, were buried and mentioned only once in order to create engagement in RACs. Directives related to restructuring the system were placed front and center in the plan, and the SLDS was considered a subset of the restructuring efforts. Equity, which played an increasingly central role in the work of the OEIB, was not central in the strategic plan. As the OEIB strategic plan became more central in the evaluation of the work of the CEEdO and OEIB toward the end of the OEIB's tenure, the strategic plan's alignment with key policies and related strategies became more important but continued to lack explicit coherence.

Interpretation of Findings: Question 1

What was the OEIB's theory of change-in-action? A theory of change-in-action lies between the "why" (i.e., the paradigm or worldview determining the purpose of change) and the "how" (i.e., the policies and related strategies of a reform; see Figure 1). Analysis and synthesis of data over time helped to illuminate the OEIB's overarching theory of change-in-action.

Above all else, the OEIB's theory of change-in-action for education reform between 2011 and 2015 aimed to increase student attainment of approved degrees,

diplomas, and certificates to meet specific targets and, in doing so, develop the state’s workforce and economy. Progress toward this goal required alignment with federal policy agreements. Also, progress was measured based on the outcome-focused nexus of state education policies, which connected individual students’ achievement data with funding. Though changing leadership led to shifts in focused action, the goals and metrics related to workforce development—known as 40-40-20 by 2025—remained the collective desired end point, which all OEIB actions aimed to achieve. Figure 18 graphically represents the OEIB theory of change-in-action described above.

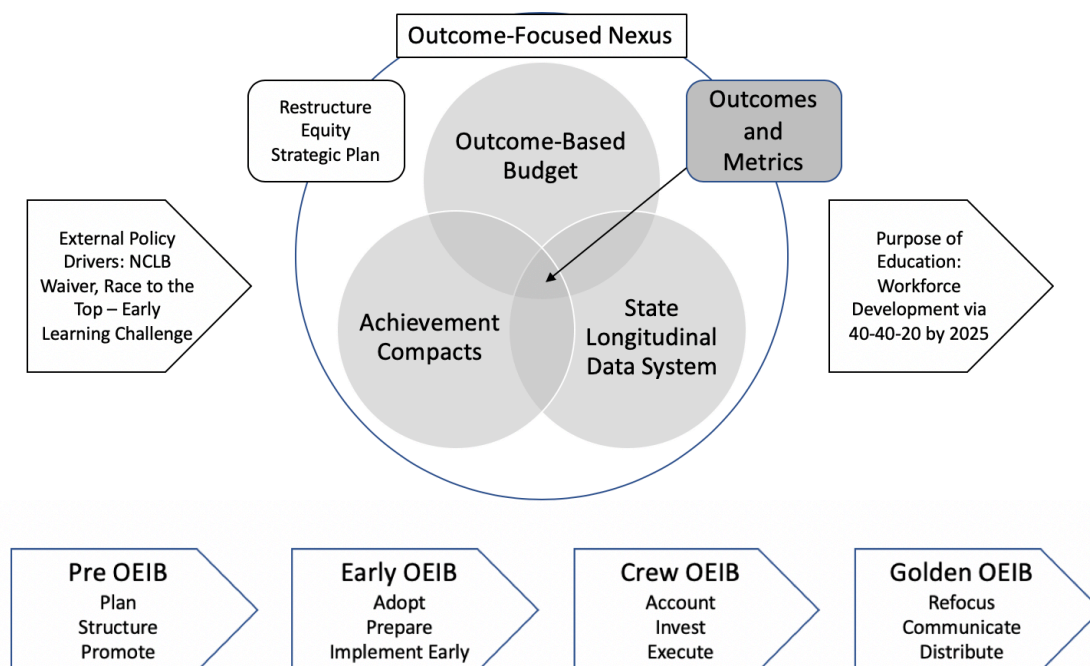


Figure 18. Actions comprising the OEIB’s theory of change-in-action.

The theory of change for reform was conceived prior to confirmation of the OEIB members. Aims for reform (e.g., to support holistic education transformation within the

state) were adopted by the collective OEIB upon confirmation, but were not realized in the collective OEIB's overarching actions. A driving force of the theory of change-in-action was the implicit assumption that the primary purpose of education was to develop a workforce pipeline whereby entry into the workforce meant that an individual possessed an approved diploma, degree, or certificate. The success of the OEIB, the reform, and the education system as a whole was ultimately narrowed down and quantified as a narrow set of outcomes aimed at fulfilling the purpose of education.

Interpretation of Findings: Question 2

How did the OEIB's theory of change-in-action align with change paradigms, including those guiding the best education systems in the world? The OEIB's overarching theory of change-in-action is compared and contrasted with ideal types of change paradigms to determine whether there was any alignment. Table 13 is a reprint of the matrix of ideal types of change paradigms to serve as a reference for the reader.

The OEIB's theory of change-in-action aligned most strongly with the dominant U.S. paradigm for change: the standardized market paradigm. While some actions within the OEIB reform demonstrated a different alignment, overall, the forces driving the theory of change-in-action were clearly aligned with a focus on outcomes. Each aspect of the change paradigm referenced in the matrix is outlined in the following sections.

Table 13

Matrix of Ideal Types of Change Paradigms

	Traditional Hierarchy (Top-Down) Central State Authority	Standardized Market (Ego-System) Measured Competition	Negotiated Implementation (Special Interest) Stakeholder Networks	Collective Learning (Eco-System) Social Movements for Liberation
System	Up there; no control; compliance-based	Out there; blame the system	Out there; can be influenced by powerful voices	Humans are the system; actors play a role in maintaining or changing the status quo
Driving Force	Authority- and input-centered	Outcome-centered	Student-centered	Entrepreneur-centered, co-creative
Primary source of Power	Sticks (punishment)	Carrots (incentives)	Normative (values)	Awareness; actions arise from seeing the emerging whole
Equity	Not a focus; equity ignored or equality achieved	In service of the market	In service of stakeholder groups	Social justice; student engagement in activism
Learning Metaphor	Acquisition-transmission	Acquisition-transactional	Participation-transactional	Knowledge creation-transformative
Policy	Generally weak or undeveloped policy	Serves market and standardization; data-driven	Negotiation; lobbying for a piece of pie	Informed practice with practice-informed policy
Primary Capital Valued	Human	Business	Contrived professional	Professional
Assessment	Inconsistent	External accountability	Professional accountability	Professional responsibility, internal accountability
Teacher–Student	Authority–Recipient	Expert–Customer	Coach or Facilitator–Client	Co-creative

Adapted from Fullan et al. (2018), Hargreaves and Fullan (2012), Hargreaves and Shirley (2009, 2012), Paavola and Hakkarainen (2005), Rincón-Gallardo (2019), Scharmer and Kaufer (2013), and Sfard (1988).

Driving force. The driving force of the OEIB's theory of change-in-action was overwhelmingly outcome-focused, aligning with the standardized market paradigm, which is typical in the U.S. The outcome-focused nexus deepened the outcome focus by connecting the budget, data collection, and mandatory achievement compact agreements intended to push for, track, and reward outcome results. Claims of student-centeredness associated with the negotiated implementation paradigm actually pointed to a focus on individualistic student outcomes. Additionally, while the centralized board could adopt the traditional hierarchical paradigm, it instead focused coordination on the outcome-focused nexus, further solidifying the standardized market paradigm.

Power. The promise of incentives or "carrots," including financial support, release from state oversight, and competitive funding for strategic initiatives, drove reform actions. These incentives were coupled with statutory compliance mandates, such as the requirement for educational entities to complete achievement compacts in exchange for baseline state funding. Once federal funding agreements came into play toward the end of the OEIB's tenure, the role of the "stick" became more prominent (e.g., priority, focus, and designated model schools; teacher evaluations based in part on student test scores). Balancing of the carrot before the stick is indicative of a standardized market paradigm. The negotiated implementation paradigm tends to assert power through normative values. The creation of the Equity Lens and the actions associated with the RACs produced some normative power, but they remained a small and somewhat peripheral focus of the theory of change-in-action.

Policy. Policies in the form of legislation and connected strategies functioned in service of workforce development and the state's goal of 40-40-20 by 2025, which aligns with the standardized market paradigm. While some policies remained vague, particularly with regard to operationalization (which is indicative of traditional hierarchy), and others, such as the distribution of funding for strategic investments, were used to negotiate for a piece of the pie (i.e., negotiated implementation), the array of policies created and legislated during the OEIB's tenure grew out of a standardized market paradigm.

Accountability. Accountability was external at both the state and federal levels and was tied to outcome targets, which directly aligns with the standardized market paradigm.

Equity. The focus on equity promised to increase the availability and quality of the workforce by supporting the success of all while decreasing the expense of social services by achieving a more highly educated and employed workforce implying that a more highly educated workforce would not require as many social services. In other words, actions related to equity functioned in service of standardized market aims. While and explicit reference to equity was initially absent (as in a traditional hierarchy) and later the creation of the Equity Lens demonstrated equity in service of the stakeholder groups whom helped design it (indicating negotiated implementation), the dominant role of equity in the theory of change-in-action was driven by the standardized market paradigm.

Capital. Fullan and Hargreaves (2012) explained capital as value-added to increase net worth. Human capital assigns value to the individual humans. Test scores in

the OEIB's theory of change-in-action for example, assigned differing values to individual teachers and students along with the schools in which they attend or work. This focus on human capital is associated with the traditional hierarchy paradigm. Business capital, however, was more dominant within the OEIB's theory of change-in-action as indicated by the strong focus workforce development as measured by educational attainment. Various taskforces, committees, and councils were put in place to accelerate particular streams of educational attainment believed to have more value, such as STEM, to increase the business capital of the workforce.

Teacher, student, and learning. The OEIB's actions, including implementation of the theory of change-in-action, do not address or make explicit the role of the teacher, the student, or learning beyond generalized statements removed from any implementation strategy or action. However, it is possible to extrapolate assumptions about these roles from the OEIB's outcome-focus and alignment. In the standardized market paradigm, the teacher is generally seen as the expert, the student is seen as the customer, and learning is seen as the acquisition of knowledge that can be demonstrated independently on an assessment.

System. At the outset, the OEIB's viewed the state-level system as "out there" and blamed it for dismal performance on outcomes. As the OEIB was engaging in a large-scale reform with the belief that actions could generate improvement, the OEIB stance shifted toward adopting a belief that the system within the state could be influenced and changed by powerful voices. However, the OEIB continued to point

fingers at the federal level, referring to the system “out there” as a large part of the problem over which the state had little control.

Summary. While not perfectly aligned, the OEIB’s theory of change-in-action mostly aligns with the standardized market paradigm of change. Some aspects of the theory of change-in-action aligned with the traditional hierarchical and negotiated implementation paradigms, but no alignment could be found with the collective learning paradigm of change.

Limitations of the Study

As with all studies, this study has limitations. Four are outlined below: the alignment of methods, data types, data boundaries, and use of models.

Systems thinking is the paradigm of thought that serves as the theoretical framework for this study. It is a way of understanding and inquiring about the world. Systems thinking is generally best aligned with a pragmatic action-based research approach, but due to the positionality of the researcher, action-based research was not an option. Thus, a pragmatic descriptive case study research was selected. Efforts were made to remain true to the systems thinking paradigm, specifically in relation to methods. Pragmatism was employed to ensure that the methods accommodated the theoretical frame, which goes beyond analysis and focuses on comprehensive synthesis of “parts” that honors the “whole” while aiming to maintain validity and reliability.

This case study only used publicly available document data. Case studies typically use multiple data sources. Document data were deemed to be the most reliable for answering the research questions. Efforts were made to ensure the data were

extensive, diversified, focused, aligned in terms of source and author, and reflective of collective OEIB actions.

Efforts were made to bind the data that were collected and used. The qualifying data were generally originated or referenced in full OEIB meeting documents and were representative of the OEIB's direct or indirect actions. While this boundary generated a copious amount of information to comb through, it excluded individual OEIB members' perspectives and beliefs; invited and public testimonies; news reports; and the perspectives of educational entities, including schools, universities, and early learning providers, as well as students. The results focus on a written documented perspective rather than lived experiences of those within the system.

The matrix of ideal types of change paradigms on which the second question is based is just a model. It borrows on the ideas of others from differing fields. While it is useful for seeing paradigms of thought, it also can create blind spots.

Chapter 5: Discussion

Remember, always, that everything you know, and everything everyone knows, is only a model. Get your model out there where it can be viewed. Invite others to challenge your assumptions and add their own. (Meadows, 1999, para. 18)

Introduction

Education is widely assumed to be a pathway to individual, collective, community, and global well-being (Darling-Hammond, 2010; Fullan, 2016; Kay, 2010). The hope for economic and other advantages produced by a well-educated citizenry has led system leaders and policymakers around the globe to work to improve educational outcomes (Hargreaves & Shirley, 2012; Mourshed et al., 2010; Ng, 2017; Sahlberg, 2011). International testing, such as the OECD's PISA, opened the door to a number of large-scale educational change inquiries into why certain (often unexpected) educational systems improve or come out on top of international rankings (Sahlberg, 2018; Schliecher, 2009). It is becoming clear that despite varying contexts, "successful" systems appear to have a theory of change-in-action that operates from a distinctly different paradigm than that of systems deemed to be stagnant or declining (Hargreaves & Shirley, 2012; Mourshed et al., 2010; Sahlberg, 2011). Systems focused primarily on climbing to the top of rankings are generally guided by policy drivers that privilege the standardized market ego-system paradigm and tend to not fare well in reaching their goal and remain stagnant or go backwards (Fullan, 2010; Sahlberg, 2011). Paradoxically, more "successful" systems, or those that end up near the top of international rankings, tend to focus on a collective learning eco-system paradigm that focuses on learning and

not outcomes (Fullan, 2011b; Ng, 2017; Sahlberg, 2011). The standardized market paradigm commoditizes and measures individual learning outcomes in a standardized format, incentivizing educational providers to successfully reach arbitrary targets. Theories of change-in-action guided by this paradigm have never been shown to produce large-scale, systemic educational improvement (Fullan, 2011a). In contrast, the collective learning eco-system paradigm aligns with a system thinking view of the world, which views the whole complex human social system of education as more than the sum of its parts and focuses on collective actors within the system as co-learners and the primary source of improvement. Theories of change-in-action led by this paradigm that focused on the process of deep learning have resulted in vast improvements for all, particularly for those who are historically most disengaged (Fullan et al., 2018). The shift from a focus on outcomes to a humanistic, collective focus on deep learning represents a paradox: only by shifting focus away from the desired end result does a system seem to begin achieving the desired end result (Fullan, 2011b; Fullan et al., 2018; Ng, 2017; Sahlberg, 2015).

The case. In 2011, with the election of a new governor, the U.S. state of Oregon endeavored to radically reform its public education system in order to improve the economic, personal, and social well-being of all citizens. Over a period of approximately four years, led by the OEIB, education, political, and business leaders aimed to build a “seamless system” of education that spanned from birth to career and aspired to achieve outcomes that came to be known as 40-40-20 by 2025: a 100% high school graduation rate, with 40% going on to earn associate’s degrees or certificates and another 40%

earning bachelor's degrees or higher by 2025. This dissertation endeavored to uncover the OEIB's theory of change-in-action and compare it to ideal types of change paradigms, including those that guide the most successful systems in the world.

Theories of change-in-action are often implicit or unexamined. Illuminating and articulating a theory of change-in-action encourages engagement dialogue and debate about the merits and pitfalls of enacted policies and related strategies that were pursued (Hargreaves & Fullan, 2009b). Comparison with change paradigms, including those guiding the most successful systems in the world, challenges individuals and society to contemplate hidden assumptions about what is ultimately desired for the future and why. It also offers a unique perspective to contemplate systemic adjustments that may be more likely to bring about systemic improvements for individuals and society (Hargreaves & Shirley, 2012; Scharmer & Kaufer, 2013).

Summary of Findings

Question 1: What was the OEIB's theory of change-in-action? The OEIB's theory of change-in-action for education reform between 2011 and 2015 aimed, above all else, to increase individual student attainment of approved degrees, diplomas, and certificates in order to meet specific state determined targets for the purpose of developing the state's workforce and economy. Progress toward this goal required alignment with federal policy agreements, which was measured using an outcome-focused nexus of state education policies, which connected individual students' achievement data with funding. Though changing leadership led to shifts in the focus of OEIB actions, the goal and metrics tied to workforce development (i.e., 40-40-20 by

2025) remained the desired end point that all OEIB actions aimed to reach (see Figure 18). Key aspects of the OEIB's theory of change-in-action are summarized below.

Purpose. The underlying purpose of the OEIB reform was to develop a statewide workforce pipeline. Guided by aspirational targets, workforce development was measured by a proxy—the percentage of diplomas, certificates, and degrees granted—which became known as 40-40-20 by 2025. The purpose of education was modified in the corresponding statute to include this goal. Early on, the reasoning given for this goal was that increased education completion rates would lead to more families with jobs that provided a living wage, thus lowering the unemployment rate and the burden on social services while increasing economic prosperity across the state. Later, this reasoning was implicit in references to the 40-40-20 goal.

Federal mandates. The NCLB waiver, also known as ESEA flexibility, and the Race to the Top—Early Learning Challenge grant offered relief from financial sanctions as well as financial awards for Oregon, respectively. In exchange for access to these competitive funds, the state was required to agree to numerous federally defined principles. These principles were strongly influenced by the standardized market, neo-liberalist paradigm of thought, which is dominant in the U.S., and thus played an influential role in the eventual development and rollout of reform policies and strategies based on the OEIB's theory of change-in-action.

Outcome-focused nexus. To achieve the statutory aim of the Oregon education reform, it was believed that shifting away from funding inputs (i.e., students in seats) and toward the desired outputs of education (i.e., achievement and completion targets

throughout the learning continuum) would lead to cost savings and efficiency as well as desired goals more quickly. I term this driving force the *outcome-focused nexus* of the OEIB's theory of change-in-action, referring to the core set of policy and connected strategies that are central to the reform. The outcome-focused nexus included:

- a specific *purpose* for education tied to accompanying developmental outcomes and metrics;
- a new outcome-driven *budget* framework focused on achievement of outcomes in part through setting of aggressive targets tied to funding, strategic investments intended to accelerate outcome achievement, with potential corresponding rewards for success;
- the *SLDS* data system, which was intended to measure outcome achievement and ROI to guide actions to improve outcomes; and
- *achievement compact* agreements between educational entities and the state articulating the planned and actual disaggregated achievement outcomes of educational entities.

While not stated as the initial intent, the outcome-focus nexus came to represent an external accountability framework containing “carrots” (e.g., financial incentives, increased freedom from state oversight and mandates) as well as “sticks” (e.g., student achievement data used to evaluate educators, state-required labeling and interventions for the lowest-performing schools).

Restructuring. The OEIB was positioned as the single oversight body to coordinate the outcome-focused reform. State-level entities were restructured into a seamless P-20 system, which was intended to support students from cradle to career. The initial restructuring occurred prior to the legislated creation of the OEIB. Once the OEIB was established, restructuring was guided by a yet-to-be-hired CEdO and yet-to-be-written strategic plan. The restructuring process resulted in a series of new and

reorganized state-level administrative bodies (ELC, HECC, YDC, etc.), which in turn restructured their areas of focus. The OEIB maintained a cooperative but relatively hands-off role in overseeing the new entities and focused on coordinating transition areas while supporting legislative actions to reduce redundancy and fill perceived gaps in the state-level organizational structure.

Equity. The first report released by the OEIB included a focus on equity as a necessary means to meet the new statutory goals for Oregon’s education system. The role of equity grew over the tenure of the OEIB, but it was largely focused on closing the outcome achievement gap across all disaggregated metrics and analyzing policy and funding streams for equitable distribution of resources.

Strategic plan. Several months after the first meeting of the OEIB, the first CEdO was hired and the first strategic plan was generated. The plan focused on key areas, associated deliverables, and metrics. Actions were intended to create:

- a seamless structure (restructuring and data system),
- policy creation (“tight” on outcomes, “loose” on implementation direction),
- outcomes (tying budgets to outcome metrics),
- engagement (building support through equity and achievement compacts), and
- determining strategic initiatives (targeted expenditure intended to accelerate achievement goals).

The plan also involved evaluating the CEdO’s and OEIB’s strategies, and focusing on short-term (i.e., 6-month) deliverables, and implementation of these strategies, focusing largely on board and state distribution of funds. The strategic plan was updated twice as

new leadership was put in place. The strategic plan aimed to guide and measure the day-to-day work of the OEIB to reach the goals of the state.

Changing leadership. Leadership frequently shifted throughout the tenure of the OEIB. Each shift changed the focus of the OEIB's actions, particularly those related to the strategic plan. However, across all changes in leadership, the collective actions of the OEIB remained focused on the statutory purpose of education (40-40-20) and the logic guiding the theory of change-in-action (i.e., restructure, revised funding formula, data, and target proxy measures as measured by achievement compacts).

Lack of connection. There was a lack of clear alignment between the narrative of the apparent aims of the reform, evolving short-term deliverables in the strategic plan, and the implicit policy and strategy drivers of the outcome-focused nexus. Equity and achievement compacts are examples of this.

Equity, for example, was thought to be a key aspect required to meet the reform's aims, but it was only explicitly included as a subset of the engagement section of the strategic plan during the Crew and interim Golden eras. In the outcome-focused nexus, equity was defined by disaggregated data outcome metrics to support the reform's workforce development goals. In addition, the broader community supported and collaboratively developed the Equity Lens to guide equitable distribution of resources. Equity, engagement, disaggregated data, resource distribution, and funding lacked concrete and explicit connections, particularly to day-to-day action laid out in the strategic plan.

Achievement compacts were espoused to be a representative handshake and a central factor connecting educational entities' budgets and actions to the state's goals for education. These compacts were devised prior to the convening of the OEIB and then were quickly declared mandatory by a statute in the early OEIB era in exchange for baseline state educational funding. The strategic plan, developed in the Crew era, defined achievement compacts as a subset of engagement, similar to equity. Communication regarding achievement compacts lacked clarity regarding their purpose and the consequences for educational entities for failing to adequately project and meet targets. The initial achievement compacts contained questionable data according to educational entities, and CEdO Crew sent many back to be reworked believing the targets set by educational entities not be aggressive enough to meet state goals, further confusing the purpose of the time-intensive exercise. Explicit references to achievement compacts were removed from the strategic plan in the Golden era, and instead they were referenced in new measured system-level outcomes. A voluntary regional version of the compacts appeared to gain support among the broader educational community. More popular and engaging regional achievement compacts were used by the OEIB to try to improve the required standard achievement compacts, but with little success. The limited engagement, mandatory completion, unclear purpose, and consequences created a lack of clarity and connection, leading to confusion and apparent irritation with the achievement compact process, particularly as it related to the OEIB's day-to-day actions laid out in the strategic plan.

In short, the OEIB's theory of change-in-action showed a relative mismatch between what was thought to drive the reform, the plan to drive the reform, and what was occurring in reality. The purpose of the reform was to support *standardized market* neo-liberalist aims (i.e., those related to workforce development), and the driving force was aspirational *standardized* target outcomes.

Question 2: How did the OEIB's theory of change-in-action align with change paradigms, including those that guide the best education systems in the world? The OEIB's theory of change-in-action aligned with the *standardized market* paradigm that is dominant in the U.S., which favors an outcome-driven focus.

Underlying connections could be drawn between the theory of change-in-action and the *traditional hierarchal* and *negotiated implementation* paradigms, but these aspects of the reform were significantly less dominant. No connections could be made to the *collective learning eco-system* paradigm, which is prominent in the best education systems in the world.

Although early OEIB communication about changes for improvement claimed the existence of "a new paradigm," the changes only resulted in a new budget model to fund outcomes (student achievement) rather than inputs (students in seats). The application for and acceptance of federal funding from the NCLB waiver and Race to the Top—Early Learning Challenge grant required the implementation of textbook standardized market reform policies (e.g., standardized testing by census, evaluation of educators based in part on student test results, publication of poorly performing schools), further solidifying the neo-liberalist drivers of action. This ultimately created a system even more set in its

standardized market approach to change. The focus on building a workforce development pipeline positioned outcomes (i.e., diplomas, certificates, and degrees) as externally measured commodities, which replicated the hegemonic paradigm of standardized markets in the U.S.

Situated in the Larger Context

This section looks at the OEIB's theory of change-in-action alongside the predominant paradigm of change in the larger context, which was characterized by the standardized market paradigm for change, education as workforce development, prioritization of outcomes, strategic planning and scientific management, educational change and social justice, and learning perspectives.

The standardized market paradigm for change. The OEIB's theory of change-in-action was driven by a standardized market paradigm, which Fullan (2011a), Hargreaves and Shirley (2012), and Sahlberg (2018) stated has not been shown to bring about sustained system-wide educational improvement. Yet, the U.S. (including Oregon) and many other systems around the world continue to design new reform approaches based on this implicit paradigm (Fullan, 2010, 2011a).

The pervasiveness of the assumptions, values, and beliefs associated with a standardized market neo-liberalist view of the world is impressive, but somewhat disturbing given its continual failure to bring about desired changes. Rincón-Gallardo (2019) began his recent book on educational change and social justice with the following statement, which provides a likely reason why this is the case:

Ideas are powerful forces. They shape not only how we think about the world but, perhaps most importantly, how we act upon it. Our ways of thinking about the world delimit what we believe is possible and desirable—what we can and should do. (Rincón -Gallardo, 2019, p. 1)

Rincón-Gallardo's (2019) insight is further enlightened by Meadows (1999), who underscored that the ideas represented by paradigms are simply mental models of how one sees the world, but they are just that—models. They are “the shared idea in the minds of society, the great big unstated assumptions—unstated because unnecessary to state; everyone already knows them—[our] deepest set of beliefs about how the world works” (Meadows, 1999, p. 15). She also alluded to the ease of slipping into an ideological hegemony. Kuhn (1996) argued that to shift from one way of thinking or paradigm to another, one needs to both see the paradigm from which one is working and its failures and a promising alternative, and the alternative must be believed to have better solutions to the problems being experienced under the current paradigm. Meadows (1999) reiterated that a shift in paradigm is a key leverage point for change; a small shift in one thing can produce big changes in everything. Scharmer and Kaufer's (2013) evolutionary economic matrix and the change paradigm matrix presented in this paper serve as useful tools to begin organizing patterns of thought-in-action and illuminating our own individual and collective blind spots, the sources of our ideas, and our paradigms, helping alternative ideas to become visible for contemplation and reflection and thus enabling shifts in the beliefs, values, and assumptions that guide ideas for action.

The often-unquestioned, long-standing, traditional hierarchical design of public education was formed during the Industrial Revolution. It includes a basic grammar of schooling, “like the ways that schools divide time and space, classify students and

allocate them to classrooms, splinter knowledge into subjects, and award grades and credits as evidence of learning (Tyack & Cuban, 1995, p. 83). Additionally, it is related to GERM (Sahlberg, 2011), which is associated with the standardized market view of large-scale system change; high performance standards and outcomes; a narrow focus on core subjects; low-risk, low-cost ways to reach learning goals; corporate management models; and test-based external accountability models. These characteristics of the traditional hierarchical design have led to systems of education and reforms that are grounded in the needs of the past and are out of sync with the emerging needs of the future. Disruptive global change abounds, yet “unchanged are the collective habits of thought and the actions they produce and reproduce” (Scharmer & Kaufer, 2013, p. 2). Oregon’s reform efforts between 2011 and 2015 fell victim to collective patterns of thought that reproduced a theory of change-in-action guided by the standardized market logic that is dominant in the U.S. As Einstein is often attributed as saying, “we cannot solve our problems with the same thinking we used when we created them.”

Workforce development as the primary aim of education. In 2011, as a part of Oregon’s education reform strategy, the purpose of higher education was altered in the associated statute to focus on the 40-40-20 goal of degree, certificate, and diploma attainment. Growth and participation of a workforce are two key determinants of economic expansion, as measured by gross domestic product (GDP; Fernald & Li, 2019). Using basic logic, making workforce development the primary goal of education can be seen as a means of increasing GDP, and thus economic prosperity. Conceivably, the workforce will also increase through a systematic increase in the acquisition of diplomas,

certificates, and degrees. More individuals with qualifications will equal a greater pool of potentially hireable workers, increasing the GDP. Additionally, cycles of growth in GDP are expected to lead to more available jobs with higher wages, generating more money that can be spent on goods and services. But in reality, there are limits to this economic growth cycle, disruptive forces that can throw it off course, and negative externalities associated with the commoditization of learning. Furthermore, some OEIB members and staff pointed out that it would be possible to meet the 40-40-20 goal and still not have a citizenry that is fully employable or employed to their potential.

A bigger question still looms: what is, and should, the purpose of education be? Defining the purpose of education is an age-old question with many answers, which vary greatly based on personal and collective worldviews. Does education as workforce development truly serve the common good? Will it “ignite the innate capacity of every human being to learn and change the world” (Rincón-Gallardo, 2019, p. 2)? How does the current schooling system align with the collective ideal?

Progressive educator Dewey (1934) stated that “any education is, in its form and methods, an outgrowth of the needs of the society in which it exists” (p. 105). It makes sense that those working from a standardized market paradigm might see the need to train young people for anticipated job markets and, in so doing, create an education pipeline of eligible workers. Indeed, in the U.S., the Trump administration recently proposed combining the federal departments of education and labor (Lombardo & Arnold, 2018).

In contrast, a collective learning paradigm perspective shifts the purpose of education away from a measured outcome end goal to a more humanistic goal:

developing confident lifelong learners and compassionate, active citizens who can thrive in an unknown global future (Rincón-Gallardo, 2019; Sloan, 2012). The current schooling system is completely out of sync with its desired ends; given the fast pace of change in the current knowledge-rich economy, many jobs today likely will not resemble the jobs of tomorrow, and many jobs do not even exist yet. Those who know how to deeply learn and engage with the world will not only have the skills needed to thrive in an unknown future but also will have an advantage over those who prioritized compliance, submission, obedience, and passivity in school, which are required to excel within the current schooling system but are not desired qualities of active citizens of the future (Rincón-Gallardo, 2019).

Prioritizing outcomes. The outcome-focused nexus was not initially intended to be the driver of external accountability in the reform, as it has become. The SLDS was intended to be a helpful support system; outcome-based funding was considered a way to restructure investment in the education system to support student learning; and achievement compacts were believed to be a friendly agreement between educational entities and the state in order to focus on outcomes that were deemed essential to meet the state's 40-40-20 goal. In other words, the overall strategy was to build an education system that was guided by a central coordinating board and supported student success through restructuring and setting ambitious targets for educational providers with the flexibility to deliver results. These targets were then to be codified in achievement compacts and supported by the SLDS. The influence of external policy mandates that the state agreed to follow when it accepted federal funding, in addition to hegemonic

assumptions about how to bring about large-scale change, eventually solidified the outcome-based nexus as an accountability framework guided by a standardized market paradigm.

Outcomes. The OEIT described Oregon's reform strategy as "a fundamental change in paradigm" from an input-based approach to outcome-based one where all appropriated state funds would shift to be tied to specific measures associated with identified educational outcomes (OEIT, 2011b, p. 6). It was thought that the state would reach the desired goals by measuring and funding the outcomes it wanted. Behavior was expected to change to meet the new outcome measures and would be rewarded by state funding. The OEIB selected outcomes across the learning continuum, focusing on easily measured individual predictors of success (literacy, math, attendance, and completion when success was defined as achievement of the 40-40-20 goal) that could be laid out relatively quickly on a brief progress-oriented scorecard. The plan was to tie progress toward the state's goals to ROI data to simplify planning and decision-making for policymakers and educational leaders.

In 2010, economic psychologist Ariely wrote a column in the *Harvard Business Review* based on his popular research-based book, *Predictably Irrational: You Are What You Measure* (Ariely, 2009). In the column, he addressed why most CEOs seem to "care more about stock value and the compensation it [the business] produces than those other [non-monitory] forms of motivation" (Ariely, 2010, p. 3). He highlighted that "human beings adjust behavior based on the metrics they're held against . . . What you measure is what you'll get" (Ariely, 2010, p. 4). Ariely provided an example of this phenomenon

happening at the organizational level: states' use of educational test scores as measures of teachers' performance. Some kids may be able to do well on the test but have difficulty demonstrating their knowledge of the same material in different ways. Rincón-Gallardo's (2019) personal story of his own education journey at the beginning of his book echoes this. Ariely (2010) explained that examples of adults gaming the system to ensure the desired results of higher test scores and thus the measured "success" to gain funding is not wholly uncommon. He cautioned that what we actually want is often not easy to measure, but it should not be avoided in favor of simpler proxy measures that can lead to unintended ends. Scharmer and Kaufer (2013) highlighted the importance of unintended effects or externalities: "In today's society, positive externalities tend to flow to the top [to the privileged], while negative externalities tend to flow to the bottom of the socioeconomic pyramid" (p. 8). These unplanned-for and unmeasured externalities cause the system to consistently achieve the same results if the paradigm is not altered.

Data. The OEIB was tasked with developing an SLDS from scratch or modifying one that was currently in use. It was hoped that this would allow anyone—teachers, students, or policymakers—to push a button and, at a glance, be informed about how the state, district, or school was progressing toward outcomes related to the 40-40-20 goals. This database was to include the amount of money invested in initiatives so that one could easily identify effective initiatives. In addition, the data system was to disaggregate data to track progress toward closing achievement gaps. The data system was positioned as a key source of statewide student support, but the data system required the collection of standardized test results, which hold schools and teachers partially

accountable for their students' performance and are thus the opposite of support.

Incentives for “success” and punitive measures for “failure” were to be administered in addition to public rating of priority, focus, and model schools.

Sahlberg (2018) noted that so much more “data are now available than can reasonably be consumed, and use [of big data to guide reforms] has shown no significant improvement in outcomes” (p. 30). He stated that with big data comes big business and new fields of data analysis, leading to policymaking and reforms based on correlations and algorithms imbedded in the past, and he asked, “Are changes based on big data really well suited for improving teaching and learning in schools and classrooms?” (Sahlberg, 2018, p. 33). According to Sahlberg, big data cannot fix education systems. As an alternative, he pointed to a resurgence in the use of small data, which is timely, purposeful, formative, and collective and offers tiny clues that reveal big trends (i.e., data at the school and classroom level), in systems considered to be more successful (Sahlberg, 2018). Thus, he claimed, “If you don't start leading through small data, you will be led by big data and spurious correlations” (Sahlberg, 2018, p. 45).

However, big data is not always bad; what is important is how it is used and the extent of its role in the reform agenda. In “Choosing the Wrong Drivers for Whole-System Reform,” a policy brief for the Center for Strategic Education, Fullan (2011a) highlighted the dominant policy pillars in the U.S. at the time: world-class standards, robust data systems, improvement of educator quality by rewarding excellence, and improvement of the worst-performing schools. He contrasted these policy drivers, which cannot change cultures, with the “right” policy drivers, which do change cultures and

produce better desired results. The wrong drivers actually demotivate both educators and students and are associated with other negative externalities. Fullan (2011a) was clear that the key word here is “driver” of the reform, meaning the key powerful and guiding policies. The SLDS, in combination with the rest of the outcome-focused nexus, was positioned play a key role in *driving* the reform forward through its connection to outcomes, budget, testing, teacher evaluations, and unprecedented access to ROI evaluations. Data systems such as the SLDS are important and can play a big role in system improvement if they are used in the right way, take a background role, and are combined with other, more effective drivers of reform. As a point of reference, Fullan (2011a) contrasted four “right” drivers with “wrong” ones: (a) capacity building vs. accountability, (b) group quality vs. individual quality, (c) instruction vs. technology, and (d) systemic vs. fragmented.

Funding. The state positioned the outcome-based education funding model as a paradigm shift. As this model was conceived by an economic consulting firm, it should come as no surprise that the logic underpinning it is aligned with the standardized market worldview. Previous input-based funding, which was determined by students in seats, was deemed to be unaffordable. In contrast, the outcome-based model claimed to support students in achieving the state’s new education goals by providing sustainable baseline funding for education entities that would grow at a diminishing rate. The money saved over time would be used for ad hoc strategic investments tied to specific student outcomes, and it would be primarily distributed by a competitive request for proposals and measured for ROI. In addition, potential incentive/performance funding for

achievement of Oregon’s educational aims (namely 40-40-20 and its predictors—the selected state outcomes along the learning continuum intended to predict achievement of 40-40-20) would be rewarded for success. While there is nothing inherently wrong with working to spend public money wisely, tying funds to a narrow set of commoditized learning outcomes and an external accountability-based framework with financial incentives and punitive measures has never been found to be sustainable (Fullan, 2011a).

Compacts. The final component of the outcome-based nexus was achievement compacts. These agreements between the state and educational entities were initially positioned as helpful conversations and commitments to do the best for students within the context of 40-40-20. They were intended to foster two-way accountability, intentionality in budgeting at the local level, and a basis for comparison of outcomes from which to gauge and inform areas for improvement. Given the choice to make compacts voluntary or mandatory, the OEIB chose to make them mandatory for receiving baseline educational funding. This was decided prior to designing or testing the process. The compacts were so “tight” on outcomes that educational entities failing to project a satisfactory increase in results (as deemed by the state) were required to resubmit the compacts. Yet the state’s “looseness” on implementation left those on the front lines to figure out how to achieve the aggressive targets, leading to a “too-tight–too-loose” situation (Fullan, 2007). In addition, initial uncertainty about the consequences of failure to meet targets introduced further tension to the process, and there was little in the way of formalized feedback loops to support improvement of the implemented concept.

The OEIB attempted to move toward a negotiated implementation paradigm by proposing to pilot voluntary regional achievement compacts that brought together multiple entities to work and learn collaboratively. While this initiative was popular with communities, it was still positioned by the OEIB as supportive of the 40-40-20 goal and was peripheral in the strategic plan. Despite this, the RACs generated excitement and energy in the communities they engaged, which is a positive outcome.

Leading with external accountability via the outcome-based nexus demotivates at every level across the system and disempowers those in the most need of empowerment, i.e., students and teachers, (Rincón-Gallardo, 2019), but there are alternatives based on different paradigms. When theories of change-in-action are developed collaboratively based on a collective learning eco-system paradigm focused on the emerging future, drastic shifts in desired goals and approaches are made possible. However, the challenge that many face is that the paradigm that leads to the most successful change is counterculture to the dominant views in the U.S. about how the world works.

Strategic planning and scientific management. The OEIB's strategic plan aimed to focus the actions of the board and CEdO regarding long-term and (especially) short-term deliverables, as indicated by the 6-month objectives within the plan. The strategic plan hinged upon the already-formalized outcomes and metrics guiding the education reform, and both the vision and guiding principles of the plan were intended to achieve the outcome-based targets (40-40-20 and its predictors). Furthermore, evaluations of both the CEdO and OEIB were to be tied to achievement of the strategic plan objectives. *Report to the Governor: Progress Towards a Unified, Outcome-Based*

0-20 Education System that Supports Innovative Teaching and Learning, which was published in the pre-OEIB era, states, “Transformation starts with a 40-40-20 strategic plan. The first job of the OEIB will be to adopt a solid plan to build on the work of the OEIT and significant bodies of work that have occurred to date in our state” (OEIT, 2011a, p. 6).

In *The Rise and Fall of Strategic Planning: Reconceiving Roles for Planning, Plans, and Planners*, Mintzberg (1994b), a business professor, MIT Slone graduate, and systems thinker, drew multiple parallels between strategic planning and scientific management, including that they were both useful in a bygone era. In a *Harvard Business Review* article, Mintzberg (1994c) described how scientific management grew out of the industrial era, when Fredrick Taylor popularized a management style that aimed to achieve the highest level of efficiency among workers on the factory floor. Mintzberg (1994c) stated that strategic planning is to management what scientific management was to the factory floor; it is a way to standardize human actions and create efficiency while viewing humans as objects or machines. Taylor (as cited in Mintzberg, 1994a) assumed that scientific study could break labor into parts and reveal one best way to efficiently achieve a task. After power and control was shifted from workers to management, workers were specifically trained in how to efficiently execute a specific task with fidelity and incentivized to achieve success with monetary rewards (Mintzberg, 1994c).

Strategic planning, which was introduced in the 1960s, promoted a calculated design and methodology based on scientific principles in which planners, detached from

implementation, start from the end point and work backwards to develop formalized steps or actions for others to perform and, in so doing, close an identified gap within a predetermined schedule (Mintzberg, 1994a). Mintzberg (1994a) highlighted that, to be effective, strategic planning required a controlled environment or the ability to predict outcomes. The field of education on the other hand, as with all human social systems, is in reality not a controlled environment. Strategy making, as opposed to strategic planning, usually occurs through informal learning and is performed by strategists immersed in complex daily processes, who are able to extract key strategic messages.

Mintzberg (1994a) explained:

Because analysis is not synthesis, strategic planning has never been strategy making. Analysis may precede and support synthesis by defining the parts that can be combined into wholes. Analysis may follow and elaborate synthesis by decomposing and formalizing its consequences. But analysis cannot substitute for synthesis. Search all those strategic planning diagrams—all those interconnected boxes that supposedly give you strategies—and nowhere will you find a single one that explains the creative act of synthesizing ideas into a strategy . . . Strategic planning is an oxymoron. (Mintzberg, 1994a p. 19)

Fullan (2008) concurred; he opens his research-based book *The Six Secrets of Change* with the following passage:

Give me a good theory over a strategic plan any day of the week. A plan is a tool . . . only as good as the mindset using it. The mindset is the theory, flawed or otherwise. Theories . . . make sense of the real world and are tested against it. The best theories are at their core grounded in action. Theories that travel well are those that practically and insightfully guide understanding of complex situations and point to actions likely to be effective under the circumstances. (p. 1)

In his recent book, which details a lifetime of work in the field of whole-system reform, Fullan (2018) reflected on his experience: “The moment you over plan change is when it starts to go off the rails” (p. 2).

The OEIB strategic plan contained several narrow objectives directing the OEIB's actions to achieve the 40-40-20 goal: restructuring, policy, outcomes, engagement, and initiatives. Reflections from the field of educational change regarding each objective are briefly summarized below.

Restructuring. Mourshed et al. (2010) analyzed a number of change journeys in various systems and note that some level of restructuring was involved in each change journey. However, restructuring represented a significantly smaller portion of change actions (10% or less) than a focus on pedagogical rights and was never positioned as the action that drives change.

Policy. Fullan (2007) warned of the dangers of a “too-tight–too-loose” policy, in which the central entity leaves the front line implementer to figure out how to make outcomes happen and blames them when improvement is not achieved.

Outcomes. Sahlberg (2015) pointed out that aggressive standards alone will never lead to improvement and in fact often has the opposite effect. Instead, it is a focus on deep student learning that is needed as a focus.

Engagement. Change requires a cultural shift, which, under the right circumstances, can generate engagement (Fullan & Quinn, 2016; Rincón-Gallardo, 2019). Achievement compacts and the Equity Lens alone cannot achieve the required cultural shift, nor can a town hall meeting.

Initiatives. The strategic plan explicitly stated that OEIB's implementation of initiatives stopped at organizing the distribution of funds for ad hoc initiatives. While funding is important, it is not a substitute for strategy or implementation.

The implicit change strategy for Oregon's implementation of reform was grounded in a scientific management model. Large-scale change was implemented through a central policy, oversight, and coordinating board and was guided by a formalized and detailed strategic plan driven by implicit standardized market paradigm aims and strategic management principles. While the strategic plan was not the only cause of the failure to improve, it was part of the reform efforts that contributed to systematic replication of prior mindsets. As Mintzberg (1994c) underscored, "strategic planning isn't strategic thinking. One is analysis, and the other is synthesis" (p. 3).

Educational change and social justice. To the credit of the OEIB, equity was highlighted as essential for achieving the aims of the reform. Equity, however, was positioned as simply raising the bar of expectations, closing the gaps between privileged and historically disadvantaged individuals, and effective implementation of the Equity Lens was to support fair distribution of resources and increase access to educational opportunities for all.

Rincón-Gallardo (2019) agreed that the dominant discourse on educational equity within the field today involves fair distribution of educational opportunities and outcomes among students, which is understood to be a desirable goal in education systems. It is commonly assumed that formal education is inherently good and directly linked to human progress and well-being. At the same time, he noted, social justice scholars and critical theorists have problematized these assumptions by examining education and educational systems in relation to the deliberate pursuit of human freedom and emancipation and looking at the oppressive function of the education system. He challenged both the fields

of educational change and social justice to embrace the blind spots that the other illuminates, looking at the intersection of learning and power as well as quality and equity to broaden the discourse beyond a view of learning as a commodity to be attained for individual economic benefits or preparation to enter the workforce, toward a more deliberate view of learning as a practice of freedom (Rincón-Gallardo, 2019).

While equity was included in and pursued by the OEIB reform, these efforts were based on the dominant assumptions that schooling is inherently good as it is. It was expected that providing increased access to education and increasing efforts to improve the individual achievement of historically disadvantaged individuals would lead to achievement of the state's 40-40-20 goal. However, this reform, similar to the field of educational change in general, did not address issues of power, freedom, and emancipation within the current grammar of schooling, which tends to replicate the social structures of the past and present and create barriers to a truly equitable, just, and democratic society. Rincon-Gallardo (2019) offered four theses with which one can more deeply address equity and social justice: learning is a practice of freedom, the pedagogical is political, good policy is similar to good pedagogy, and schools and contexts should be changed equally.

Learning. Learning was visibly absent from the discourse within the Oregon reform and the OEIB's theory of change-in-action. Whether this is acknowledged or not, explicit and unspoken assumptions about learning drive which practices are considered and acted upon (Fullan et al., 2018). In other words, the OEIB's theory of change-in-action, while not explicitly addressed, reflects an assumed view of learning. In this

section, I briefly review three metaphors of learning that express different underlying views of what constitutes learning. Then, I connect them to the OEIB's theory of change-in-action and to emerging conceptions of the new collective learning, eco-driven, systems thinking paradigm for change.

Three metaphors of learning. In Sfard's (1998) paper "On Two Metaphors of Learning and the Dangers of Choosing Just One," published in *Educational Researcher*, she highlighted two broad metaphors of learning: acquisition and participation. She provided a convincing argument that the lines between metaphor and theory are blurred and highlighted the ability of metaphor to illuminate broad paradigmatic shifts in theory and concept. The *acquisition* view of learning focuses on the capacity of the individual mind, making knowledge a commodity and the learner the owner of what is known (Sfard, 1998). Terms associated with this metaphor, such as "concept," "fact," "knowledge," "accumulation," and "construction," are embedded in much of the historical and current discourse on learning (e.g., Bandura, 1977; Skinner, 1987; von Glasserfeld, 1996). Owned knowledge that is acquired can be easily tested and graded.

The *participation* metaphor of learning assumes that there is no separation between knowing and doing and that learning is fundamentally situated in or tied to interactions in context. Learning does not live in the mind of the individual, but in relationships, as it is an interactive process. The terms associated with this metaphor include "knowing," "doing," "taking part," and "being part of." The learner is seen as part of a larger whole who begins on the periphery and gradually becomes part of the community. Communities of practice and apprenticeships are examples of participatory

learning (e.g., Brown, Collins, & Duguid, 1989; Lave, 1996; Lave & Wenger, 1991). Given that learning lives outside the learner and within interactions, questions may be raised about the possibility of transference to other contexts or applications outside of the community of practice. Sfard (1998) concluded that learning is not monological, but dialogical; both the acquisition and participation perspectives of learning are needed “to avoid theoretical distortions and undesirable practices” (p. 4).

Finnish scholars Paavola, Lipponen, and Hakkarainen (2004) proposed a third metaphor of learning, the “knowledge creation metaphor,” which is theoretically based on activity theory and knowledge-building theory. They argued that productive participation in knowledge-intensive work requires individuals and their communities to continuously surpass their own achievements, develop new competencies, advance their knowledge and understanding, and produce innovation and create new knowledge. It draws attention to assumptions about the nature of learning in a world of continuous change and emphasizes the role of productive collective thinking to address challenges that have never been identified before. They claimed that innovation is not the main focus of the acquisition or participation view of learning, that all three metaphors for learning (i.e., a triological view) are necessary, and that these metaphors may not be ordered from weakest to strongest because they raise different kinds of questions (Paavola et al., 2004). The knowledge creation metaphor of learning emphasizes the pursuit of newness (knowledge creation) and the importance of social processes (participation), which draw from and feed upon individual initiatives and cognitive growth (acquisition). This is productive collaborative participation in the development of

“new shared conceptual and material objects of activity [that are] subsequently used with in the cultural settings in which they are created” (Paavola & Hakkarainen, 2005, p. 548).

The OEIB’s theory of change-in-action assumes that learning can primarily be described by the acquisition metaphor, particularly in students’ younger years. Policies and discourse focus on the eventual individual acquisition of knowledge, which is primarily measured by testing. Participatory learning may also be assumed to be part of attaining diplomas and degrees in some fields where internships, apprenticeships, and/or field practice are required to attain the diploma or degree. However, evaluations of individual teachers adopt the acquisition view of learning, valuing and measuring teachers’ individual human capital while neglecting to acknowledge participatory forms of learning or social capital and professional capital within the field (Hargreaves & Fullan, 2012).

According to relatively recent conceptions of learning in the field of educational change, successful systems are associated with a cultural shift toward a view of learning aligned with the triological metaphor of knowledge creation. This triological view encompasses not only student learning but also learning associated with teaching, leadership roles, and those involved in policy development. It embraces learning-in-action within the human social system of education, where all actors are individually and collectively empowered through learning to act as change agents (Paavola et al., 2004). Rincón-Gallardo (2019) captured the essence of this emerging cultural shift from the perspective of learning as a practice of freedom: “Education policy and practice should be problematized, examined, and redesigned in terms of the extent to which they foster

the conditions of individual and collective freedom required for deep learning to take hold and spread across entire educational systems” (p. 20).

Deep learning in action is described by Fullan et al. (2018) in their action-research-based book *Deep Learning: Engage the World Change the World* and by Mehta and Fine (2019) in their research-based book *In Search of Deeper Learning: The Quest to Remake the American High School*. Deep learning, according to Fullan et al. (2018), requires six global competencies: character, citizenship, collaboration, communication, creativity, and critical thinking—where the first three are catalytic competencies in that they lead to the others. They argued that these competencies are different than 21st-century skills in that they are integrated, comprehensive, precise, and measurable (Fullan et al., 2018). Under the right conditions, learning designed in accordance with these aims reaches everyone, “but is especially effective for those most disconnected from schooling” (Fullan et al., 2018, p. 5). Mehta and Fine (2019) described deep learning as involving the integration of mastery (knowledge and skills), identity (core selves vitally connected to what they are learning and doing) and creativity (learning through producing something). They found that deep(er) learning across the U.S. is definitely the exception, not the norm, and is rarely included in the core curriculum (Mehta & Fine, 2019). Instead, it is most often found on the periphery, in extracurricular activities and some non-core classes. Done well, deep(er) learning produces students who serve as agents of change (Fullan et al., 2018). It fundamentally alters the pedagogy of learning, and students, teachers, and others operate as co-equal learning partners. Students get a glimpse of what it is like to be an agent of change and become committed to making a

difference in the world, both locally and broadly (Fullan et al., 2018). According to Fullan et al. (2018), “If we want learners who can thrive in turbulent, complex times, apply thinking to new situations, and change the world [deep learning] must become the new purpose of education” (p. 13).

Creating conditions for deep(er) learning requires a fundamental shift in pedagogy, which involves unlearning (Mehta & Fine, 2019) and reconstructing the teacher–student relationship (Fullan et al., 2018). Rincón-Gallardo (2019) posited that we must see the instruction as political, as the teacher–student relationship is built upon power and control. To shift to teacher–student co-learning, this relationship must change, and teachers must learn to develop a new understanding of the goals and purpose of education and how to achieve them. Deep learning goals and aims must sit as the central driving force around which all else is organized. Hargreaves and Fullan’s (2012) award-winning concept of professional capital, which is related to a broad view of nuanced leadership (Fullan, 2019) and coherence (Fullan & Quinn, 2016), fits with this new paradigm of learning for educational change. Instruction is political, and the instructional core can and should be conceptualized as a basic unit of social relationships of power and authority (Rincón-Gallardo, 2019). Rincón-Gillardo (2019) suggested critically looking at instructional change agendas to learn whether they reproduce social relationships of compliance or promote human-centered relationships characterized by dialogue, mutual learning, and collaboration with students. In most cases, teachers especially have few pedagogical rights and hierarchy and compliance is the dominant driving force—creating the situation where learning by all across the system is quashed.

Extended to education policy, Rincón-Gallardo (2018) posited that good policy is similar to good pedagogy; “like teaching by lecturing, reform by telling teachers what to do is ineffective” (p. 24). Reform implementation requires meaning making or learning on the part of those expected to carry it out in classrooms and schools. According to Rincón-Gallardo (2018), “Education policy should be examined and designed with attention to the extent to which it models effective pedagogical relationships of mutual learning between state, central offices and schools or reproduces vertical relationships of authority and control” (p. 24).

Rincón-Gallardo (2019) also stated, “Sustainable success in schools and school systems depends on simultaneously changing what happens inside schools and what happens outside schools” (p. 27) Students can and should be seen as change agents. To truly embrace learning as knowledge created through deep learning, drastic changes must be made to the teacher–student relationship and what types of educational success are measured and how. Doing so would provide hope for the success of the future of formalized education.

The theory of change-in-action adopted by Oregon and the OEIB failed to address new conceptions of learning related to policy creation, educational leadership, and the teacher–student dynamic, as evidenced by the fact that mandates were focused on outcomes aligned with the standardized market paradigm. Compliance and control was a dominant force under the banner of “accountability” and learning was simply not addressed in the reform equation.

Implications

In 2011, the OEIB emphasized that the reform would be different from others as it would aim to “motivate learners and teachers, commit to equity by focusing on every student, support high quality teaching through training, licensing, recruiting and mentoring new teachers, develop meaningful ongoing performance evaluations and professional development, and promote individualized learning” (OEIB, 2011b, p. 17). In addition, it would avoid pitfalls, such as “blaming teachers and administrators for performance problems, instituting evaluation systems [that] attempt to push principals and teachers to be more effective, testing for accountability which consumes money, time, and narrows curriculum from which students disengage” (OEIT, 2011b, p. 17).

This study revealed that the central drivers of the theory of change-in-action were individual student outcomes, as measured by diploma, certificate and degree completion rates, for the primary purpose of workforce development. Standardized tests and easily quantifiable metrics were used as proxies and predictors of success, incentivized by funding, and externally monitored for accountability. Federal funding was received in exchange for the adoption of policies that publicly rated schools and evaluated teachers based on students’ test results in core subjects. The bright spots of the reform, such as the RACs and Equity Lens, were overshadowed by the dominant paradigm according to which policy and target outcomes were developed.

The results of this study were not wholly surprising from a systems thinking perspective, and they are a stark reminder of the pervasiveness of the underlying paradigms that affect how we operate. Despite the time, energy, and money spent by

genuinely good people working to do good things, the reform did little, if anything, to change the grammar of schooling. Thus, the education system remained stuck in a neo-liberalist standardized-market-based push for change, which prioritized outcomes and accountability and adopted a commoditized, individualized acquisition view of learning. This ultimately resulted in the same outcome, with a different story.

What are the implications of this study from a pragmatic perspective? What can and should we do across all levels of the system, from students to the statehouse, and across the globe? The ever-evolving findings of large-scale educational change research reveal that there is no silver bullet or single best way to improve; there is no checklist, toolbox, policy package, logic model, or strategic plan that, if adopted, will lead to success. Change without a road map is daunting, but there are more effective mindsets, paradigms, and worldviews that, when internalized and acted upon individually and collectively, lead toward (and facilitate learning about) collective actions that activate, liberate, and democratize formal education in ways that align with the emerging future.

A small shift in change paradigms can have immeasurable implications and call for thoughtful reconsideration of every aspect and action throughout the human social system of education, particularly in the U.S due to the hegemonic standardized market paradigm status quo. In the conclusion to this research paper, I intentionally avoid offering a checklist of next steps. Instead, I focus on general implications and action-oriented questions across six different focal areas: paradigms, social justice, learning, leading, policy, and research. The reader is invited to think upon their own context, and their own internal assumptions, values and beliefs and consider from what paradigm they

are individually and collectively imbedded. It is from this starting point that meaningful change for the good can be transformational.

Paradigms. The implication of large-scale change based on a standardized market paradigm is simple: it is very unlikely that system improvement will be realized. The big question this research raises is “how do we leverage desired change by changing the paradigm from which we operate?” One must first recognize that there is a paradigm from which we operate, and then one can begin to understand how to change it.

The paradigm matrix presented in this paper might be a starting point, as it has the potential to ignite change in the minds of those rooted in standardized market thinking, and to create a bridge by explaining the current paradigm and highlighting another that has more potential for addressing the issues of the emerging future. The aims of earlier stages of the matrix will continue to exist, but they will be mitigated and made less important by a new meta paradigm that prioritizes the collective learning eco-system drivers over the individual ego-system system. This paradigm will encourage wholly different actions for change among every actor (individually and collectively) within the system.

Moving forward, paradigmatic metaphors have the potential to be improved through collaborative reflection with others. How might students respond to these paradigmatic representations of formal education and learning? What paradigm might they say about what they are currently experiencing? What would it take to truly experience deep(er) learning as described by Fullan et al. (2018) and Mehta and Fine (2019)? What are the current barriers to deeper learning? In what ways can students

individually and collectively organize to take action for the change they desire? The same questions can be asked of those in leadership roles including educators, school heads, central office employees, teacher educators, state and federal policymakers, as well as community participants including parents, and broader community members.

One of the biggest challenges associated with the assumptions, values, and beliefs that underlie paradigms is that they are rendered invisible. As well, it is not uncommon to publicly embrace one set of beliefs but act on another. Seeing the source of actions through paradigmatic metaphor enables actions to be shifted. The matrix of change may provide an accessible window into current paradigms and promising alternatives.

Social justice. If achieved, the current dominant stance on equity—raise the bar of achievement expectations, close the gap between the more and less privileged, and provide universal access to education—is not likely to create a more socially just society on its own. It will not stop people from becoming disengaged and dropping out or lead to fulfillment in life for all. Nor will it emancipate and empower a new generation to participate in building a stronger democracy. Rincón-Gallardo's (2018, 2019) propositions seek to shed light on the blind spot in the educational change field by deeply embedding social justice issues related to power and equity, which are often addressed at the margins or are invisible in the central discourse and actions in the field of educational change. It is powerful, but challenging, to embrace learning as an act of freedom, instruction as political, good policy as synonymous with good teaching, and change within contexts in and out of school as equally important. Several questions are raised: How do power dynamics play out in the classroom, the school, the district, the state, and

the country? How do these power dynamics impact equitable outcomes for individuals, student, teachers, and principals and for the collective? Is learning seen by students as an act of freedom in core classes? In other classes? And at the periphery in extracurriculars? Are schools actively engaged with communities to change the contexts both in and out of school and become more socially just and equitable? All actors across the education system from student to leader must consider the implications of educational practice, leadership, policy, and research that intentionally pursue a more just social order.

Learning. There are numerous implications of what is considered successful and valuable learning. Conceptions of learning are deeply tied to the paradigm that affects one's actions. According to the acquisition view of learning, learning is commoditized and can be gained for individual and economic benefits and as preparation to enter the workforce (Rincón-Gallardo, 2019). From this perspective, it is easy to test and measure the learning of an individual. The knowledge creation metaphor for learning, however, embraces learning guided by more humanistic aims, such as democratic social action, lifelong learning, liberation, character, and citizenship. One of the central tenants of the knowledge creation metaphor is the creation of new objects of action to be used within the cultural settings in which they are created (Paavola et al., 2004). This encompasses the deeper learning idea (Fullan et al., 2018; Mehta & Fine, 2019) of students and teachers co-learning to co-create innovation for social change both inside and outside the local school community.

It is important to ask questions about the dominant metaphor for learning-in-action and learning aims. Do all system actors answer questions in the same way? Why or why not? What outcomes are driven by the dominant metaphor and aims, and how are those outcomes measured? How might the process and assessment of learning look different across different paradigms and metaphors and different areas of the system (e.g., among educators, policymakers)? How do students, teachers and policymakers understand learning for themselves and the collective?

If deep(er) learning is to be the purpose of education, issues related to learning and power, and learning and culture must be contemplated. Are we trying to dominate and control students and educators? To fill students with knowledge to pass tests and then move on to the next step? Or are we letting go to let come a new teaching-learning dynamic (Scharmer, 2009) in a supportive environment? Are learners allowed to be engaged and drive the learning agenda in meaningful ways? Because everyone is essentially a learner, there are opportunities in most arenas to enact change now; there is no need to wait. The more individuals and collectives push and pull the levers of change advocating for deeper learning for all, the more opportunity this view will have to spread and the more it will evolve into a social movement as suggested by Rincón-Gallardo (2019).

Leading. While the results of this study did not directly address leadership, they implied assumptions about leadership. In particular, it is necessary to closely look at the tensions between leadership and power and ask questions about whether leadership is grounded in collective learning or controlled from above by actions reflecting scientific

management. Is change being driven by strategic plans, or is change driven by a strategy that gives all actors across the system (including students) the freedom to learn and lead as required by the context? Is true leadership a title or a way of being? Do actors within the system truly co-learn and network laterally and vertically across all system levels, and does this way of being open the door for all to enact leadership at any level, in any position, for the purpose of positive change? How do you and those around you enact leadership?

Policy. According to Rincón-Gallardo (2019),

educational policy and practice [is connected and] inherently cultural and political. Cultural because they are embedded in and produce systems of belief, thinking and action that guide everyday practice and behaviors, and political because they involve relationships of power and authority. (p. 19)

This research focuses on what can and should be the purpose of policy in change efforts be and how good or bad policy creation relates to the enactment of real educational change. Good education policy is similar to good education pedagogy (Rincón-Gallardo, 2019); it can be created together with the field and rise from below to solve challenges in the field, and it provides the freedom to enact the changes needed in the moment rather than pushing changes down from the top. The OEIB was created as a central coordination board that recommended policy to the legislature, and it coordinated and recommended effective policy with a somewhat predictable degree of effectiveness. For example, achievement compacts were conceived at the board level, the concept was discussed with some in the field, and then it was mandated by a statute in exchange for funding. In contrast, the RACs were conceived on the ground, funded as pilots, and were voluntary. The latter was embraced by the field, while the former was resisted.

Policymakers can and should consider both the power and cultural implications of proposed policies along with the paradigm with which the policies align. All other actors in the system can and should consider how they can push up good policy recommendations from below, both individually and collectively.

Research. This study raises considerations for both this research and system change researchers in general. In relation to this study, uncovering a theory of change-in-action is not as simple task as it might first seem. The details of action must be understood in order to truly uncover and illuminate the theory of change-in-action, independent of the theory that is publicly embraced. For example, Fullan (2018) described Hargreaves' dislike for the Ontario reform strategy and Fullan noted that a shift in understanding occurred only after Hargreaves conducted an external evaluation of the system. Another example is Mehta and Fine's (2019) research, which documented deeper learning in American high schools. Many supposed deeper learning pedagogies aligned with the collective learning paradigm and models of deeper learning, but in actuality, deeper learning was almost non-existent in the instructional core.

This research also revealed that evidence about a theory of change-in-action must come from synthesis of the collective policies and connected strategies that are enacted. No one single policy, action, or person can represent a collective theory of change-in-action. Likewise, simply adding up the paradigms associated with individual reform actions will not adequately represent the overarching theory of change-in-action. While there may be pockets of greatness associated with one paradigm, perhaps protected from larger system drivers, this may not be representative of the dominant system policies and

strategies driving the systems theory of change-in-action. In other words, the whole is always more than the sum of its parts.

In general, for educational change to be sustainable, it needs to happen together with those within the system. In line with systems thinking methodologies for systemic change, leaders of successful change emphasize the importance of “action with,” in which actors help design and enact change in context (Fullan & Quinn, 2016). Across the field of education, there seems to be a movement toward pragmatic, participatory action-based research. For example, the 2020 theme of the AERA annual conference is collaboration, and the call for papers is entitled *The power and possibilities for the public good when researchers and organizational stakeholders collaborate* (Siddle Walker, Croft, & Purdy, 2019). The call stated,

For over 50 years, AERA has been structurally disconnected from the educational communities about whom we write. The time has come for AERA to reclaim the historic possibilities of connectivity and collaboration in educational problem solving and to include organizational stakeholder both national and local as full participants . . . (Siddle Walker et al., 2019, p. 1)

Lather (2018) referenced her famous paper presented at AERA 30 years ago, “Research as Praxis,” in a new paper, “Thirty Years After: From Research as Praxis to In the Ruins,” which was recently published as a chapter in *Future Directions of Educational Change*. In it, she reflected on the groundbreaking shift in thought about the purpose of research that occurred 30 years ago, challenging the field to rethink research again. She asked, “what is needed?” and answers, “a kind of participatory research on steroids” (Lather, 2018, p. 81). Furthermore, in their book *The Action Research Dissertation: A Guide for Students and Faculty*, Herr and Anderson (2015) explored

common misunderstandings about action research and its many forms in different disciplines. They offer helpful advice for faculty, students, and IRB committees to support research practice while negotiating with those who may not be familiar with the research methods.

This study, which was not participatory, offers many implications for further research. Further development may allow the paradigmatic matrix to help those engaged in change efforts to uncover the theories of change-in-action that influence their work. Uncovering Oregon's current theory of change-in-action and those who enact it across multiple system levels could prove very useful for capturing and questioning the paradigm and theory of change-in-action in real time (now), which would allow those within the system to consider actions and, potentially, change them. The matrix might especially resonate with students, given that it is their future at stake. It has been demonstrated that students have the power to have their voices be heard. The same could be done with teachers, leaders, schools, school districts, and beyond. However, it is critical that this process involve individuals embedded within the system; a researcher or other individual from outside the system will never successfully create change.

As a single individual who conducted this dissertation research alone, at minimum I am obligated to share it with those within the system—the subjects of the study—and with others within the field to provide them the opportunity to glean lessons or ideas to achieve positive change. In addition, only those systems with written documentation of the entire change process, including the theory underpinning it in action, tend to be

considered successes (or failures) by the field of educational change. This research can be used as an example from which to learn.

Concluding statement. Although the OEIB was comprised of good people with good intentions, its theory of change-in-action was driven by the neo-liberalist standardized market paradigm, which is dominant in the U.S. but has not been shown to bring about large-scale sustained improvement anywhere in the world (Fullan, 2011a). Moving forward, can we shift paradigms and turn formal education into a vehicle for liberation, prosperity, and democracy on a global scale (Rincón-Gallardo, 2019)? Perhaps the main point of this research is that true educational change—of the kind described in the concluding chapter—will finally be realized when we embrace the power of deeper learning especially for students and, in so doing, achieve a better future better for us all. Today, students are actively participating in changing our world. Several social movements are driven by students; Swedish climate activist Greta Thunberg sparked a widespread global walk out for climate change, and Hailey Hardcastle and others in Oregon have championed mental health days in schools in response to the Parkland shootings. Regardless of what the purpose of education should be and how things might need to change, there is no need to wait; all of us can take small and big actions to improve education today.

References

- Ackoff, R. (1999). *Ackoff's best: His classic writings on management*. New York: NY: John Wiley & Sons.
- Argyris, C. (1999). *On organizational learning* (2nd ed.). Oxford, UK: Blackwell.
- Argyris, C., & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco, CA: Jossey Bass.
- Ariely, D. (2009). *Predictably irrational: The hidden forces that shape our decisions*. New York, NY: Harper Collins.
- Ariely, D. (2010, June). Column: You are what you measure. *Harvard Business Review*. Retrieved from <https://hbr.org/2010/06/column-you-are-what-you-measure>
- Banathy, B. H. (1973). *Developing a systems view of education: The systems-model approach*. Belmont, CA: Fearon Publishers.
- Banathy, B. H. (1991). *Systems design of education: A journey to create the future*. Englewood Cliffs, NJ: Educational Technology Publications.
- Bandura, A. J. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barber, M. (2007). *Instruction to deliver: Tony Blair, public services and the challenge of achieving targets*. London, UK: Politico's Publishing.
- Barber, M., & Mourshed, M. (2007). *How the world's best education systems come out on top*. Retrieved from <https://www.mckinsey.com/industries/social-sector/our-insights/how-the-worlds-best-performing-school-systems-come-out-on-top>
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32–42. Retrieved from <https://doi.org/10.3102/0013189X018001032>
- Checkland, P. (1999). *Systems thinking, systems practice: Includes a 30-year retrospective*. New York, NY: John Wiley & Sons.
- Checkland, P., & Poulter, J. (2006). *Learning for action: A short definitive account of soft systems methodology and its use for practitioners, teachers and students*. New York, NY: John Wiley & Sons.

- Checkland, P., & Scholes, J. (1993). *Soft systems methodology: A 30-year retrospective*. New York: NY: John Wiley & Sons.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Crew, R. (2013). *Oregon Education Investment Board Chief Education Officer Strategic Plan Summary*. Salem, OR: Chief Education Office Archive.
- Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teachers College Press.
- Dewey, J. (1934). Individual psychology and education. *The Philosopher*, 12(1), 105. Retrieved from <http://www.the-philosopher.co.uk/2016/08/individual-psychology-and-education-1934.html>
- Dewey, J. (1963). *Experience and education*. New York, NY: Collier Books.
- Family Educational Rights and Privacy Act of 1974 (FERPA). 34 C.F.R. § 99 (1974).
- Fernald, J., & Li, H. (2019). *Is slow still the new normal for GDP growth?* Retrieved from <https://www.frbsf.org/economic-research/publications/economic-letter/2019/june/is-slow-still-new-normal-for-gdp-growth/>
- Friedman, T. L., & Mandelbaum, M. (2011). *That used to be us: How America fell behind in the world it invented and how we can come back*. New York, NY: Farrar, Straus, and Giroux.
- Fullan, M. (2000). The return of large-scale reform. *Journal of Educational Change*, 1(1), 5–27. Retrieved from <https://doi.org/10.1023/A:1010068703786>
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York, NY: Teachers College Press.
- Fullan, M. (2008). *The six secrets of change: What the best leaders do to help their organizations survive and thrive*. San Francisco, CA: Jossey Bass.
- Fullan, M. (2009). Large-scale reform comes of age. *Journal of Educational Change*, 10(2–3), 101–113.
- Fullan, M. (2010). *All systems go: The change imperative for whole system reform*. Thousand Oaks, CA: Corwin.

- Fullan, M. (2011a). *Choosing the wrong drivers for whole system reform: Seminar series 204*. Victoria, Australia: Center for Strategic Education.
- Fullan, M. (2011b). *The moral imperative realized*. Thousand Oaks, CA: Corwin.
- Fullan, M. (2013a). *Motion leadership in action: More skinny on becoming change savvy*. Thousand Oaks, CA: Corwin.
- Fullan, M. (2013b). Forward. In Janc Malone (Ed.), *Leading educational change: Global issues, challenges, and lessons on whole-system reform* (pp. xi-xii). New York, NY: Teachers College Press.
- Fullan, M. (2016). *The new meaning of educational change* (5th ed.). New York: NY: Teachers College Press.
- Fullan, M. (2018). *Surreal change: The real life of transforming public education*. New York, NY: Routledge.
- Fullan, M. (2019). *Nuance: Why some leaders succeed and others fail*. Thousand Oaks, CA: Corwin.
- Fullan, M., & Quinn, J. (2016). *Coherence: The right drivers in action for schools, districts, and systems*. Thousand Oaks, CA: Corwin.
- Fullan, Quinn, J., & McEachen, J. (2018). *Deep learning: Engage the world change the world*. Thousand Oaks, CA: Corwin.
- Gardner, H. (2006). *Multiple intelligences: New horizons* (2nd ed.). New York, NY: Basic Books.
- Guba, E. G., & Lincoln, Y. S. (1981). *Effective evaluation: Improving the usefulness of evaluation results through responsive and naturalistic approaches*. San Francisco, CA: Jossey Bass.
- H.B. 2013, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 2220, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2011).
- H.B. 2636, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 3075, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 3120, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 3231, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).

- H.B. 3232, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 3233, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 3234, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- H.B. 4056, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2012).
- H.B. 4058, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2014).
- H.B. 4061, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2012).
- H.B. 4116, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2014).
- H.B. 4150, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2014).
- H.B. 4165, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2012).
- Hargreaves, A., & Fullan, M. (Eds.). (2009a). *Change wars*. Bloomington, IN: Solution Tree.
- Hargreaves, A., & Fullan, M. (2009b). Introduction—Change wars: A hopeful struggle. In A. Hargreaves & M. Fullan (Eds.), *Change wars* (pp. 1–10). Bloomington, IN: Solution Tree.
- Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York, NY: Teachers College Press.
- Hargreaves, A., Lieberman, A., Fullan, M., & Hopkins, D. (Eds.). (2010). *Second International Handbook of Educational Change* (Vol. 23). New York, NY: Springer.
- Hargreaves, A., & Shirley, D. (2009). *The fourth way: The inspiring future for educational change*. Thousand Oaks, CA: Corwin.
- Hargreaves, A., & Shirley, D. (2012). *The global fourth way: The quest for educational excellence*. Thousand Oaks, CA: Corwin.
- The Health Insurance Portability and Accountability Act of 1996 (HIPPA), Pub. L. 104-191, 110 Stat. 1936 (1996).
- Herr, K., & Anderson, G. (2015). *The action research dissertation: A guide for students and faculty* (2nd ed.). Thousand Oaks, CA: Sage.
- Homer-Dixon, T. (2006). *The upside of down: Catastrophe, creativity, and the renewal of civilization*. Toronto, Canada: Alfred A. Knopf.

- Janc Malone, H. (Ed.). (2013). *Leading educational change: Global issues, challenges, and lessons on whole-system reform*. New York, NY: Teachers College Press.
- Janc Malone, H., Rincón-Gallardo, S., & Kew, K. (Eds.). (2018). *Future directions of educational change: Social justice, professional capital, and systems change*. New York, NY: Routledge.
- Johnson, D. W., & Johnson, R. T. (2018). Cooperative learning: The foundation for active learning. *Active Learning—Beyond the Future*. Retrieved from <https://doi.org/10.5772/intechopen.81086>
- Joint Special Committee on Public Education Appropriation. (2013). *Report on adequacy of public education funding as required by article VIII, Section 8, of the Oregon Constitution: 2013-2015 education budget*. Retrieved from https://www.oregonlegislature.gov/citizen_engagement/Reports/educationFunding_2013.pdf
- Kagan, S. S. (2007). *Cooperative learning*. Victoria, Australia: Hawker Brownlow Education.
- Kay, K. (2010). Forward 21st century skills: Why they matter, what they are, and how we get there. In J. A. Bellanca & R. S. Brandt (Eds.), *21st century skills: Rethinking how students learn* (pp. xiii–xxix). Bloomington, IN: Solution Tree.
- Kellogg Foundation. (2007). *SPARK theory of change*. Retrieved from <https://www.wkkf.org:443/resource-directory/resource/2007/07/spark-theory-of-change>
- Kitzhaber, J. (2011a). *Governor Kitzhaber's inaugural remarks*. Retrieved from <https://digital.osl.state.or.us/islandora/object/osl:17003>
- Kitzhaber, J. (2011b). *Memorandum: Implementation of S.B. 909 and next steps for the board: Oregon Education Investment Board (OEIB) meeting packet November 21*. Salem, OR: Chief Education Office Archive.
- Kitzhaber, J. (2015). *Resignation of Oregon Governor John Kitzhaber*. Retrieved from https://ballotpedia.org/Resignation_of_Oregon_Governor_John_Kitzhaber
- Kuhn, T. (1996). *The structure of scientific revolutions* (3rd ed.). Chicago, IL: The University of Chicago Press.
- Lather, P. (2018). Thirty years after: From research as praxis to praxis in the ruins. In H. Janc Malone, S. Rincón-Gallardo, & K. Kew (Eds.), *Future directions of educational change: Social justice, professional capital and systems change* (pp. 71-86). New York, NY: Routledge.

- Lave, J. (1996). Teaching, as learning, in practice. *Mind, Culture, and Activity*, 3(3), 149–164.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- LearnWorks. (2011, September 30). *LearnWorks: Findings and recommendations* [Presentation slides] in S.B. 909 workgroup meeting packet, 2011, September 30, Salem, OR: Chief Education Office Archive.
- Legislative Administration Committee Services. (2011). *Summary of legislation: 2011*. Retrieved from <https://www.oregonlegislature.gov/lpro/summleg/2011SummaryOfLegislation.pdf>
- Legislative Administration Committee Services. (2012). *Summary of legislation: 2012*. Retrieved from <https://www.oregonlegislature.gov/lpro/summleg/2012SummaryOfLegislation.pdf>
- Legislative Administration Committee Services. (2013). *2013 summary of legislation*. Retrieved from <https://www.oregonlegislature.gov/lpro/summleg/2013SummaryOfLegislation.pdf>
- Legislative Administration Committee Services. (2014). *2014 summary of legislation*. Retrieved from <https://www.oregonlegislature.gov/lpro/summleg/2014SummaryOfLegislation.pdf>
- Lombardo, C., & Arnold, A. (2018, June 21). *White house proposes merging education and labor departments* [News]. Retrieved from <https://www.npr.org/sections/ed/2018/06/21/622189097/white-house-proposes-merging-education-and-labor-departments>
- Marx, G. (2014). *21 trends for the 21st century: Out of the trenches and into the future*. Bethesda, MD: Education Week Press.
- Meadows, D. (1999). *Leverage points: Places to intervene in a system*. <http://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/>
- Meadows, D. (2008). *Thinking in systems: A primer*. White River Junction, VT: Chelsea Green Publishing.
- Mehta, J. (2013). *The allure of order: High hopes, dashed expectations and the troubled quest to remake American schooling*. New York, NY: Oxford University Press.

- Mehta, J., & Fine, S. (2019). *In search of deeper learning: The quest to remake the American high school*. Cambridge, MA: Harvard University Press.
- Minority Teacher Act of 1991. ORS 342-433 to 342.449 (Or. 1991).
- Mintzberg, H. (1994a). Rethinking strategic planning part 1: Pitfalls and fallacies. *Long Range Planning*, 27(3), 12–21.
- Mintzberg, H. (1994b). *The rise and fall of strategic planning: Reconceiving roles for planning, plans, planners*. New York, NY: Maxwell Macmillan.
- Mintzberg, H. (1994c, February). *The fall and rise of strategic planning*. Retrieved from <https://hbr.org/1994/01/the-fall-and-rise-of-strategic-planning>
- Morgan, D. L. (2007). Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*, 1(1), 48–76. <https://doi.org/10.1177/2345678906292462>
- Mourshed, M., Chijioke, C., & Barber, M. (2010). *How the world's most improved school systems keep getting better*. Retrieved from <https://www.mckinsey.com/industries/social-sector/our-insights/how-the-worlds-most-improved-school-systems-keep-getting-better>
- New Pedagogies for Deep Learning. (n.d.). *New pedagogies for deep learning: A global partnership*. Retrieved December 1, 2019, from <https://www.npd.global/>
- Ng, P. T. (2017). *Learning from Singapore: The power of paradoxes*. New York, NY: Routledge.
- No Child Left Behind Act of 2001, 20 U.S.C. § 6319 (2002).
- Office of the Governor. (2011). *Executive order 11-02: Oregon Education Investment Team—Office of the Governor*. Retrieved from <https://digital.osl.state.or.us/islandora/object/osl:62206>
- Oregon Department of Education. (2012). *U.S. Department of Education ESEA flexibility request Approved -Oregon—Revised February 10, 2012*. Retrieved from <https://www2.ed.gov/policy/eseaflex/approved-requests/or.pdf>
- Oregon Education Investment Board. (2011a). *OEIB meeting packet: December 7*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2011b). *Oregon Learns: Report to the legislature for the Oregon Education Investment Board December 15, 2011*. Retrieved from <https://digital.osl.state.or.us/islandora/object/osl%3A16590>

- Oregon Education Investment Board. (2012a). *OEIB meeting packet: Feb 7*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2012b). *OEIB meeting packet: March 13*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2012c). *OEIB meeting packet: March 27*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2013a). *OIEB meeting packet: February 12*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2013b). *OEIB meeting packet: April 9*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2013c). *OEIB meeting packet: August 13*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2014a). *OEIB meeting packet: August 12*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Board. (2014b). *OEIB meeting packet: October 14*. Salem, OR: Chief Education Office Archive.
- Oregon Education Investment Team. (2011a). *Report to the governor: Progress toward a unified, outcome-based 0-20 education system that supports innovative teaching and learning*. Retrieved from <https://digital.osl.state.or.us/islandora/object/osl%3A16577>.
- Oregon Education Investment Team. (2011b). *Oregon learns: The strategy to get to 40/40/20- August, 2011*. Retrieved from <https://digital.osl.state.or.us/islandora/object/osl%3A16578>
- Oregon University System. (2012). *From goal to reality 40-40-20: A report on strategies to meet Oregon's 40-40-20 education goals, based on the 2011 leadership symposium sponsored by the Oregon University Systems*. Retrieved from <https://digital.osl.state.or.us/islandora/object/osl:22876>
- Oregon Identity Theft Protection Act of 2007, ORS 646A.600 to 646A.628 (Or. 2007).
- Organization of Economic Cooperation and Development. (n.d.). *OECD-PISA*. Retrieved December 1, 2019, from <https://www.oecd.org/pisa/>
- Paavola, S., & Hakkarainen, K. (2005). The knowledge creation metaphor—An emergent epistemological approach to learning. *Science & Education*, 14(6), 535–557.

- Paavola, S., Lipponen, L., & Hakkarainen, K. (2004). Models of innovative knowledge communities and three metaphors of learning. *Review of Educational Research*, 74(4), 557–576.
- Pirsig, R. (1974). *Zen and the art of motorcycle maintenance: An inquiry into values*. New York, NY: Harper Collins.
- Ramage, M., & Shipp, K. (2009). *Systems thinkers*. London, UK: Springer.
- Ratcliffe, S. (2016). *Oxford: Essential quotations* (4th ed.). Cambridge, UK: Oxford University Press. Retrieved from <https://www.oxfordreference.com/view/10.1093/acref/9780191826719.001.0001/q-oro-ed4-00003988>
- Rincón-Gallardo, S. (2018). In the pursuit of freedom and social justice: Four theses to reshape educational change. In H. Janc Malone, S. Rincón-Gallardo, & K. Kew (Eds.), *Future directions of educational change: Social justice, professional capital, and systems change* (pp. 11-34). New York, NY: Routledge.
- Rincón-Gallardo, S. (2019). *Liberating learning: Educational change as a social movement*. New York, NY: Routledge.
- S.B. 222, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- S.B. 242, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2011).
- S.B. 253, 76th Or. Legis. Assemb., Reg. Sess., (Or. 2011).
- S.B. 270, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- S.B. 552, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2011).
- S.B. 755, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- S.B. 909, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2011).
- S.B. 909 workgroup. (2011). *S.B. 909 meeting packet: October 10*. Salem, OR: Chief Education Office Archive.
- S.B. 1524, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2014).
- S.B. 1538, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2012).
- S.B. 1574, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2014).
- S.B. 1581, 76th Or. Legis. Assemb., Reg. Sess. (Or. 2012).

- S.B. 5521, 77th Or. Legis. Assemb., Reg. Sess. (Or. 2013).
- Sahlberg, P. (2011). *Finnish lessons: What can the world learn from educational change in Finland?* New York, NY: Teachers College Press.
- Sahlberg, P. (2015). *Finnish Lessons 2.0: What can the world learn from educational change in Finland?* (2nd ed.). New York, NY: Teachers College Press.
- Sahlberg, P. (2018). *FinnishED leadership: Four big, inexpensive ideas to transform education.* Thousand Oaks, CA: Corwin.
- Scharmer, C. O. (2009). *Theory U: Leading from the future as it emerges, the social technology of presencing.* San Francisco, CA: Berrett-Koehler.
- Scharmer, C. O. (2016). *Theory U: Leading from the future as it emerges, the social technology of presencing* (2nd ed.). San Francisco, CA: Berrett-Koehler.
- Scharmer, C. O. (2018). *The essentials of Theory U: Core principles and applications.* San Francisco, CA: Berrett-Koehler.
- Scharmer, C. O., & Kaufer, K. (2013). *Leading from the emerging future: From ego-system to eco-system economies—Applying theory U to transforming business, society, and self.* San Francisco, CA: Berrett-Koehler.
- Schleicher, A. (2009). International benchmarking as a lever for policy reform. In A. Hargreaves & M. Fullan (Eds.), *Change wars* (pp. 97-116). Bloomington, IN: Solution Tree.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action.* New York, NY: Basic Books.
- Senge, P. (1996). *The fifth discipline: The art and practice of the learning organization.* New York, NY: Double Day.
- Senge, P. (2010). Forward. In *All systems go: The change imperative for whole system reform.* Thousand Oaks, CA: Corwin.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2), 4-13. Retrieved from <https://doi.org/10.3102/0013189X027002004>
- Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational Leadership*, 53, 12–16.

- Siddle Walker, V., Croft, S., & Purdy, M. (2019). *The power and possibilities for the public good when researchers and organizational stakeholders collaborate: AERA 2020 annual meeting theme*. Retrieved from <https://www.aera.net/Events-Meetings/Annual-Meeting/2020-Annual-Meeting-Theme>
- Sinek, S. (2009). *Start with why: How great leaders inspire everyone to take action*. New York, NY: Penguin.
- Skinner, B. F. (1987). *Upon further reflection*. Englewood Cliffs, NJ: Prentice-Hall.
- Sloan, W. (2012). What is the purpose of education? *ASCD Education Update*, 54(7). Retrieved from <http://www.ascd.org/publications/newsletters/education-update/jul12/vol54/num07/What-Is-the-Purpose-of-Education%C2%A2.aspx>
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- State Board of Education. (2011, October). *Recommendations to Governor Kitzhaber & the Oregon Education Investment Board* retrieved from <https://digital.osl.state.or.us/islandora/object/osl:14610>
- Stroh, D. P. (2015). *Systems thinking for social change: A practical guide to solving complex problems, avoiding unintended consequences, and achieving lasting results*. White River Junction, VT: Chelsea Green Publishing.
- Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform*. Cambridge, MA: Harvard University Press.
- UNESCO. (2014). *UNESCO education strategy 2014-2021*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000231288>
- U.S. Department of Education. (2010). *A blueprint for reform: The reauthorization of the elementary and Secondary Education Act*. Retrieved from <https://www2.ed.gov/policy/elsec/leg/blueprint/blueprint.pdf>
- U.S. Department of Education. (2012). *ESEA flexibility*. Retrieved from <https://www2.ed.gov/policy/elsec/guid/esea-flexibility/index.html>
- von Glasserfeld, E. (1996). Footnotes to "the many faces of constructivism". *Educational Researcher* 25(6), 19-19. Retrieved from <https://doi.org/10.3102/0013189X025006019>
- Wagner, T. (2012). *Creating Innovators: The making of young people who will change the world*. New York, NY: Scribner.

- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (2012). *Applications of case study research* (3rd ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (2018). *Case study research and applications: Design and methods*. Thousand Oaks, CA: Sage.

Appendix A
OEIB Meeting Dates Index

OEIB meeting dates from which documents were reviewed as data

S.B.909 Workgroup Meeting Documents.

Sep. 30, 2011 Salem
 Oct. 10, 2011 Portland
 Oct. 26, 2011 Salem
 Nov. 10, 2011 Portland

OEIB Board Meeting Documents.

Nov. 21, 2011 Tigard
 Dec. 1, 2011 Portland
 Dec. 7, 2011 Salem
 Dec. 12, 2011 Salem
 Jan. 3, 2012 corrupt file
 Feb. 7, 2012 Salem
 Mar. 13, 2012 Portland
 Mar. 27, 2012 Salem
 Apr. 10, 2012 Portland
 May 8, 2012 Salem
 May 31, 2012 special meeting Portland
 June 12, 2012 Salem
 July 10, 2012 planning meeting Portland
 July 10, 2012 Portland
 Aug 7, 2012 Salem
 Sept. 11, 2012 Portland
 Oct. 8, 2012 Corrupt file
 Nov. 7, 2012 Portland
 Dec 11, 2012 Salem
 Jan 8, 2013 Salem (meeting document file format changes)
 Feb 12, 2013 Salem
 Mar 12, 2013 Salem
 Mar 25, 2013 special meeting Salem
 Apr 9, 2013 Salem
 May 14, 2013 Salem
 June 11, 2013 Salem
 July 1, 2013 special meeting conference call
 July 11, 2013 special meeting conference call
 Aug. 13, 2013 Salem
 Sept. 10, 2013 Salem
 Oct. 8, 2013 Salem
 Oct 27, 2013 special meeting conference call
 Nov 12, 2013 Portland
 Jan 14, 2014 Salem (meeting document file format changes)

Feb 11, 2014 Salem
Mar 11, 2014 Portland
Apr. 8, 2014 Salem
May 13, 2014 Salem
June 10, 2014 Salem
Sept 9, 2014 Portland
Sept 18, 2014 special meeting conference call
Oct 14, 2014 Portland
Nov 10th 2014, Portland
Dec. 9, 2014 Salem
Jan 13, 2015 Portland

Appendix B

Master Index of Raw Data

Master Index of Raw Data Dropbox Collected from OEIB Website at the end of OEIB Tenure.

All Documents have original file names as provided by the state on the website.

About Landing Page

- About landing page.tiff
- 40 40 20 status Final KG oeib 2.27.15 pdf
- Achievement Compact Landing
 - Achievement compacts landing p1tiff
 - Achievement Compacts landing p2.tiff
 - 12_13 Post Secondary.pdf
 - 13_14Post Secondary.pdf
 - 2014-2015 K-12 Achievement Compact website.pdf
 - AC_1516_worksheet final with 040115 .xls
 - AC201516 suppressed master 121214.pdf
 - AC_2015-16 techmanual.pdf
 - AC_TechManual_Final_201415.pdf
 - Achievement Compact Related Statutes links.docx
 - Community College 2014-15 Achievement compacts.pdf
 - University 2014-2015 Achievement Compacts.pdf
 - WG_AC_Implementation Report_V4.pdf
 - Regional Achievement Collaborative Pilot –
- Board of Directors Landing
 - Board of Directors Landing p2
 - Board of Directors Landing p1
- Chief Education Officer Landing
 - CEO Bio.pdf
 - CEO landing p 1
 - CEO landing p2
- Commitment to Equity Landing Page
 - Commitment to equity landing tiff
 - Equity lens facilitation tool OEIB 2.3.15
 - Final Equity Lens Adopted
- FAQ Landing
 - FAQ landing p1
 - FAQ p2
- Our Priorities Landing
 - 6_OEIB Strategic Plan
 - OEIB_Scorecard_v31
 - Our Priorities Landing page 1
 - Our Priorities Landing page 2

- What we do Landing
 - Commitment to Equity Landing
 - What we do landing

Birth Career landing Page

- Early Learning.tiff
- HECC landing. Tiff
- HECC Vol BOD p1.tiff
- HECC Vol BOD p2.tiff
- ODE.tiff
- Youth Development Council Landing.tiff

Connect Landing Page

- Contact Us
 - Contact us landing tiff
- OEIB Staff
 - 3.30.15 org chart with Mike_Holly names only.pdf
 - Bio Angela Bluhm
 - Bio Cathy Clark
 - Bio Cheng-Fei Lai
 - Bio Hilda Rosselli
 - Bio Holly Cruzen
 - Bio Drissi Hewitt
 - Bio Kristin Gimball
 - Bio Mark Lewis
 - Bio Mike Rebar
 - Bio Nancy Golden
 - Bio Peter Tromba
 - Bio Sandy Braden
 - Bio Serena Stoudamire Wesley
 - Bio Seth Allen
 - Bio Shadlin Garcia
 - OEIB Staff p1
 - OEIB Staff p2
 - OEIB Staff p3
 - OEIB Staff p4
- Receive Information
 - Receive Info Landing tiff
- Research and Briefs
 - 2ExeSumMinEduc_Report_July2014
 - 2Minority_Report_FNL1.pdf

- Anew Path for Oregon Proposal by Oregon Educators Complete KGOEIB3.11.15
- Adopted CCR Definition May 2014
- EdAssistanCareerPathwaysExecSum.pdf
- Final Approved 2015-17 Affirmative Action Plan 11.24.14.pdf
- Issue Brief Discipline.pdf
- IssueBrief_EL.pdf
- OEIB Career PathwaysRptH.B.3254.pdf
- Student Data Privacy Report.pdf
- Twelve Preliminary Recommendations

Initiatives landing page

- Accelerated learning
 - Accelerated learning committee
 - Accelerated learning p1
 - Accelerated learning p3
 - Accelerated learning p3
- Initiatives landing.tiff

Meetings Landing Page

- **Accelerated Learning Committee**
 - 10-1-14 Coverletter ALC LEG REPORT LF NG.pdf
 - Accelerated learning committee landing page
 - Corrected ALCLegReport11.1.14pdf
 - Corrected ALCO Oct2014 Ex Summary Leg Rept .pdf
 - Meeting Archive
 - Accelerated learning Archive.docx
 - AL 1_8_14 matsv9pdf
 - ALC3_12_14.pdf
 - ALC5_7_14mats.pdf
 - Als8_13_14Done.pdf
 - ALCmats6_11_14FINAL.pdf
 - ALCmats9_30FInalFinal.pdf
- **Best Practices and Student Transition committee**
 - 2012
 - Dec 11 12
 - BestPracticesAgendasDec11.pdf
 - Colin.pdf
 - Colin1.pdf
 - contents
 - 2013
 - Dec 10 13

- 1BPagenda.pdf
- 2bnortes.pdf
- 3.10a Educator Survey Definition.pdf
- 3.10b Employer Survey Definition.pdf
- 3RuralAsp.pdf
- 4RuralVoc.pdf
- 6Ruralprep.pdf7asmtkind.pdf
- 8OEIBSubcommitteeFinal.pdf
- Chemeketa ELL Transition.pdf
- Contents.pdf
- NW%r20%Rural%20SI%20Network%20project-2
- OEIB 12.9.13-2
- Oregon University teacher completion rates.pdf
- RevStatutes.pdf
- TSPC and SOS Audit.pdf
- Feb 12 13
 - AllHandsRAised.pdf
 - BPAgenda212
 - BPdraftregional.pdf
 - Contents.pdf
 - EdPartnership.pdf
- Jan 8 13
 - PBAgendaJan82013.pdf
 - Contents.pdf
 - DraftpropRegional3.pdf
 - K12.pdf
- Nov 27 13
 - 1aBP.pdf
 - 1aELL.pdf
 - 1aHills.pdf
 - Contents
- Oct 8 13
 - AgendaBPOct8.pdf
 - BestCharge.pdf
 - Contents.pdf
 - ELStatus.pdf
 - Teachers.pdf
- Oct 31 13 (password protected no data)
- 2014
 - Jan 14 14
 - Accel Learn Com Update Jan 2014

- CCR Definition Handout
 - CT Study Prospectus.pdf
 - FINAL Agenda Best Practices January.pdf
 - Grades 11-14 Student Transitions for BPST
 - KSA Dual Language Specialization.pdf
 - KSA ELL.pdf
 - Notes from Best Practices Dec 10 2013.pdf
 - OEIO ELL and Dual Language.pdf
 - OEIG Rural Presentation 1.13.13pdf
 - Revised Cohort Analysis of LEP Students - - BR analysis
- Feb 11 14
 - BP2_5_14v9.pdf
- Mar 11 14
 - BPMarch11mats 2.pdf
- May 13 14
 - BPMaymats.pdf
- June 10 14
 - BP6_10_14.pdf
- July 8 14
 - BP7_8_14final.pdf
- Sept 9 14
 - BP9_9_14matsfinal.pdf
- Oct 14 14
 - BPSTOctmats.pdf
- Nov 18 14
 - BP11_18_14matspublicfinal2.pdf
- Dec 9 14
 - BPST12_9Final.pdf
- 2015
 - Jan 13 15
 - BPSTJan_2015mats.pdf
 - Mar 10 15
 - BPST3_10_15mats.pdf
- Audio Links Best Practices and Student Transitions Subcommittee
- **Board Meetings**
- S.B.909 Workgroup
 - Sept 30 11
 - 09_30_2011_S.B.909_student_data_system_charge.pdf
 - 9_30-11_sp909_work_group_minutes.pdf
 - 2011_09_30-genteal_S.B.909ppt.pdf
 - learnworks_ppt_sept30.pdf

- learnworksmemberdirectory.pdf
 - 09_30_2011_S.B.909_work_teams_assignemnts.pdf
 - 2011_09_30_S.B._woerk_group_agenda.pdf
 - October 10 11
 - 10_10_2011_ S.B.909 workgroup minutes.pdf
 - 10_10_2011_sp909 workgroup agenda.pdf
 - 2011_PM_Report_Final.pdf
 - community_college_workforce_ development S.B.909 workgrouppresentation
 - Goals and objectives
 - OUS_ measures_that_matter
 - S.B.909_ and_ Oregon_ educaiton_ model.pdr
 - Oct 26 11
 - 10_26_11 Handout_bevertonschool district
 - 10_26_11 handout_castillohistoryofreportcard.pdf
 - 10_26_11 handout castilloreportcardratingsystem.pdr
 - 10_26_11 handout castillowschoolreportcardratingsytemvertime
 - 10_26_11 handout ccwdconceptualframeworkkachcompacts
 - 10_26_11 handoutcosasuptssuggestionsontcomes
 - 10_26_11 handoutlowecompletecollegeamericaperfunding
 - 10_26_11 handout oS.B.ateestomonuy
 - 10_26_11 handout ousachievementcompactframework
 - 10_26_11 handout outcomeinvestmentworkteammaterials
 - 10_26_11 S.B.909 wgagenda
 - 10_26_11 sp909 work_gorup minutes
 - Future meetings
 - Nov 10 11
 - 11_10_11 Chalkboard_presentation.pdf
 - 11)10_11 OCCftransitionrec.pdf
 - 11)10_11 S.B.909 workgroup_agenda.pdf
 - 11_10-11 sp909 workgroup minutes
 - chalkboardeducatorachievementcompact.pdf
 - chalkboadprofect_classprojecrt.pdf
 - chalkboardstudnetacheivementcompact.pdf
 - OEA_oeib_presentsaion11-10-11.pdr
 - OSApresentationinnovation10_2011.pdf
 - Osacpreaentionnov10_2011.pdf
 - Stem_presentation.pdf
- 2011
 - Nov 21 11
 - 11_21_11_summaryof_communication outreach
 - 11_21_11_correstondence to oeib

- 11_21_11_gonernorguidancememo
- 11_21_11_draft8_chiefeducationofficerjd
- 11_21_11_elcupdate_dickalenander
- 11_21_11_ode_projectalder_update
- ODE, OUS, CCWD OED, TSPC
- 11_21_11_OEIB meeting agenda final
- 11_21_11_summaryofreports.pdf
- 11_21_11_dataworkgroupsummary
- 11_21_11_future_meetings
- nov21minutesfinal.pdf
- Dec1 2011
 - Summaryoeibstrategiesandplan
 - Richardsanders1201test.pdf
 - Rouportoutlinepdf
 - Oeibdec1schubertthetomony.pdf
 - Legconcepts121.pdf
 - Krisalman1201test
 - Healthykids1207testdpdf
 - Govletter.pdf
 - Esd1201test.pdf
 - Elc121test.pdf
 - Dec1minutesfinal.bdf
 - Chalkboardedmessaging.pdf
 - 1201aclu.pdf
 - 12-1-11_oeib_meeting_agenda.pdf
- Dec 7 11
 - 12-7-11_oeib_meeting_agendarev.pdf
 - 126oeibreportchapter1revised.pdf
 - 126oeibreportchapter2revised pdf
 - 126oeib report chapter 3 revised
 - 12111govletteroeibplf
 - bencannonpp120test.pdf
 - cedorecruitment1207.pdf
 - congresswomanhooley1207test1pdf
 - congresswomenhooley1207test2pdf
 - dec7minutes.pdf
 - early learning *councils.B.909report126_11.pdf*
 - easternpromisepp1207.pdf
 - futuremeetings 1207.pdf
 - healthykids1207.pdf
 - hklbcadre1207test.pdf
 - krisalman1207test.pdf
 - lindaacedo1207.pdf

- margaratedelacy1207test.pdf
 - oeibglossary 1207.pdf
 - Dec 12 11
- 2012
 - Jan 3 2012 Empty
 - Feb 7 12
 -
 - Mar 13 12
 - Mar 27 12
 - Apr 10 12
 - May 8 12
 - May 31 12
 - June `12c12
 - July 10 12
 - July 10 12 (planning meeting)
 - Aug 7 12
 - Sept 11 12
 - Oct 8 12 (file appears corrupt)
 - Nov 7 12
 - Dec 11 12
- 2013
 - April 9 13
 - Aug 13 2013
 - Feb 12 13
 - Jan 8 13
 - July 1 13 Special meeting
 - Jan 11 13 special meeting
 - June 11 2013
 - Mar 12 13
 - Mar 25 13 (special Meet)
 - May 14 13
 - Nov 12 13
 - Oct 8 13
 - Oct 8 13
 - Oct 27 special meeting
 - Sept 10 13
- 2014
 - OEIB Agency Budget
 - OEIB1_14_14v9.pdf
 - OEIB2_11_14Arch.pdf
 - OEIB4_8_12matsREV.pdf
 - OEIB5_13_14matsfinal.pdf

- OEIB9_9matsfinalB.pdf
- OEIB9_18_14mats.pdf
- OEIB11_10_14finalmats.pdf
- OEIBDec2014matsFINAL.pdf
- OEIBmats6_10_14FINAL.pdf
- OEIBmatsw_test.pdf
- OEIBOctmatsFinal.pdf
- UpdatedOEIB3_11_14.pdf
- 2015
 - Jan 13 15
- meetings landing page
- **Equity and Partnerships Subcommittee**
 - 2012
 - Dec 12 2012
 - Achgapreport.pdf
 - Contents.pdf
 - EquityPartnershipsAgnedaDec11
 - 2013
 - Jan 8 2013
 - Ccc.pdf
 - Contents.pdf
 - Equityavendajan08.pdf
 - March 12 2013
 - Contents.pdf
 - Equity lens draft rev2doc.pdf
 - Equitypartnershipsagendamar12.pdf
 - May 23 2013
 - Agenda May 23.pdf
 - Contents.pdf
 - July 11 2013
 - 20131219111238361.pdf
 - Contents.pdf
 - Oct 8 2013
 - Contents.pdf
 - EQTeach.pdf
 - EquityAgendaOct.pdf
 - Final Min Teacher S.B. 755 ref
 - Nov 12 2013
 - 2014
 - Jan 14 14 empty
 - Equity31114mats.pdf
 - EquityDec21014mats.pdf

- Equitymats6_25_14.pdf
 - June4Equitymats.pdf
 - OI8_6_14.pdf
 - **2015**
 - EQsub4_1_15mats.pdf
 - Equity2_4_15Finite.pdf
- **Outcomes and investment meeting files**
 - Budget Recommendations Final.pdf
 - FebOlmats.pdf
 - OI1-08-13.pdf
 - OI2_27_14v9.pdf
 - OI4_17_14mats.pdf
 - OI7_24_14wtest.pdf
 - OI8_21matsFinal.pdf
 - OI8_6_14.pdf
 - OI_21matsFinal.pdf
 - OI12_12_13.pdf
 - OImats6_12_14FINAL
 - OIMaymats.pdf
 - OIOctmatsFinal.pdf
 - OTDec2014mats.pdf
 - Outcomes and investments subcommittee.docx
 - Outcomes ROI presentation 12_18_14
- Outcomes and investment subcommittee meeting archive
- **Personnel Management and oversight Committee**
 - P & Management Subcommittee
 - January 21
 - AgendaPMOSubJan21.pdf
 - Board_Financials_thourgh123113.pdf
 - For Subcommittee_CEdO Scorecard.pdf
 - Memo to Management_1-17-14
 - Meetings for personal management and oversight subcommittee
 - PMOfinalmats 9_24_14
 - PMOmats4_29_14
 - Personnelle management subcommittee landing page
- **Privacy Bill Workgroup**
 - Meeting archive
 - LC2430_DRAFT_2015_Regular_Session.pdf
 - Spw8_6_14mats.pdf
 - Student Privacy Data Workgroup Archive.docx
 - Privacy bill workgroup landing page copy

- **STEM Council**
 - Stem communications and advocacy subcommittee
 - Stem communication subcommittee
 - STEM communications and advocacy subcommittee archive.docx
 - STEM_Commjan2015mats.pdf
 - STEM Data and metrics subcommittee
 - Dec2014Data_Metricsmats.pdf
 - FebD_Mmats.pdf
 - STEM Data and metrics subcommittee
 - STEM data and metrics subcommittee.docx
 - Stemlanding page 1
 - Stemlanding page 2
 - STEM LEADERShip Summit
 - STEM Perspectives—Radar Plot.pdf
 - STEM Summit policy and investment recommendations
 - STEM Word Cloud.pdf
 - Systemic Barriers-categorized.pdf
 - STEM meeting archive
 - AprilSTEMmats.pdf
 - STEM 3_20_14v2.pdf
 - STEM Packet 1.16.15.pdf
 - STEM_jan2015mats.pdf
 - STEM2_24_14v2.pdf
 - STEM2_27_15matsfinal.pdf
 - STEM3_27mats.pdf
 - STEM9_17finalmats.pdf
 - STEMmats5_15_14.pdf
 - STEM6_12_14FINAL.pdf
 - STEMOctmatsFinal.pdf
 - STEM Strategic Plan—DRAFT for feedback.pdf
 - STEM Strategic Plan Development Subcommittee
 - FebStartPlanmats.pdf
 - May1SrtatPlan.pdf
 - STEM Strategic Plan Development Subcommittee
 - STEMStratsub3_20_15mats.pdf
 - STMSub11_19_14.pdf
 - StratDec2014mats.pdf
 - STEM-CTE Venn Diagram V2(1).pdf
 - STEMHubmap.pdf