When School Turnaround Meets Decentralization:

State-level Policy Innovation for Low-performing Schools

Changhee Lee

[1]Department of Leadership, Policy, and Organizations, Vanderbilt University

Abstract

This paper explores how the state education agency develops policy innovation for low-performing schools in response to decentralization. Drawing on March's (1991) organizational learning framework, analysis of the case of Florida's school turnaround reveals that the federal and state government may find Florida has explored a substantial number of temporally new approaches for the least resourced schools, prompted by the decentralization. However, Florida, viewed from a cognitive aspect, continued to pursue locally developed approaches as well as strategies established under preexisting federal guidelines, making only marginal changes to teaching and learning, but radical changes in personnel management. The implications of the conceptual framework and results are discussed in relation to existing literature, policy, and future research.

When School Turnaround Meets Decentralization:

State-level Policy Innovation for Low-performing Schools

One of the longest-standing policy debates in U.S. education history is what roles the federal versus state government play in reducing disparities in student outcomes (Hess & Eden, 2017). While state governments have long shouldered primary education responsibilities (McDonnell, 2005), researchers have recognized the increasing federal efforts since Title I to support schools serving a large percentage of low-achieving students from disadvantaged backgrounds (Cohen D. & Moffitt, 2010; Grissom & Herrington, 2012). At the same time, heavy criticism arose toward federal interventions, especially surrounding national school turnaround initiatives, which include a set of comprehensive interventions that aim at making quick progress to increase student achievement in underperforming schools (Herman et al., 2008). The main argument against these federal-led interventions is that the unique, chronic challenges of low-performing schools are hardly fixed by the generic 'one-size-fits-all' type of federal services like No Child Left Behind (NCLB)(Forte, 2010; Sunderman et al., 2005).

Indeed, there is a growing need for innovative school reform paths to support some of the most vulnerable schools to achieve a dramatic boost in student performance. Recent efforts from the NCLB Waiver to the Every Student Succeeds Act (ESSA) have sought to prompt innovation—defined as *a novel, yet potentially beneficial approach departing from conventional practice* (Vincent-Lancrin et al., 2019)—for these schools through decentralization. For instance, when ESSA was passed, Tennessee Senator Lamar Alexander commented that "It [ESSA] will unleash a flood of excitement and innovation." Hence, one of the key assumptions behind the authority shift is that the devolved governing units will take the initiative to experiment with new approaches, while being more accountable for their local priorities and outcomes. Such

assumption has been long recognized as an important theme in education research on charter schools (e.g., Lubienski, 2003; Preston et al., 2012; Wohlstetter et al., 1995) and school-based management reforms (e.g., Robertson et al., 1995). Yet, little empirical analysis supports whether states with different challenges and dynamics of change would make a substantial shift in the status quo as a reaction to decentralization. Only recently have several studies found that states have uneven tendencies when it comes to leveraging the given flexibility to redesign more reliable, innovative statewide accountability systems in a broad sense (Aldeman et al., 2017; McGuinn, 2019; Polikoff et al., 2014), which is associated with the financial capacity and political conditions of each state (Wrabel et al., 2018). While these findings contribute to the research of decentralized intergovernmental dynamics, much more remains to be understood about how the dynamic elements of decentralization function to formulate creative, statewide systems of support in a sophisticated school turnaround setting.

This paper aims to extend our understanding of the critical link between decentralization and policy innovation for educational equity by addressing underexplored avenues in existing studies, which are mostly focused on the adoption and diffusion of specific policy innovations. This study instead considers a state's relative orientation for changes through a more elaborated conceptual framework based on March's (1991) organizational learning perspective—the *exploitation* of existing knowledge and the *exploration* of new knowledge. Scholars, policymakers, and practitioners would benefit from employing such an integrated framework that not only enables them to disentangle complex patterns of innovation in the state school improvement policies (Cohen D. & Ball, 2006), but also offers an opportunity to reconsider the alignment of policy rationales, goals, and instruments at the system level (McDonnell & Elmore, 1987). Using a content analysis approach focused on the case of Florida, we seek to answer the

following two research questions:

RQ1: How does the state education agency develop policy innovation for low-performing schools when the federal regulatory pressures are withdrawn?

RQ2. What does innovation look like by education functions from the perspectives of the state and federal government?

To this end, a conceptual framework is developed that begins to quantify the innovativeness of Florida's school turnaround initiatives under decentralization along the temporal and cognitive dimensions. Next, the results are visualized using quadrant mapping by education functions and perspectives. Our results indicate that the federal and state government may find Florida has explored a substantial number of temporally new approaches for some of the nation's least resourced schools, prompted by the decentralization. In contrast, viewed from a cognitive aspect, Florida, in fact, continued to pursue locally developed approaches as well as strategies established under preexisting federal guidelines, making only marginal changes to teaching and learning, but radical changes in personnel management.

Certainly, decentralization has benefits: Utilizing local knowledge, the Florida State Education Agency (SEA) exercised its newfound authority over resource allocation in a more streamlined manner, enabling it to adopt existing programs spanning different government levels or disciplinary boundaries and to facilitate the development of infrastructure to bolster already established programs. All of these in combination resulted in improving the academic achievement of students in the weakest schools (Author, 2019). It would be misleading, however, to conclude that all the states would bring about the type of innovation—an *exploration of novel ideas for all*—that many federal policymakers anticipated achieving through the reduction in federal control.

Literature review

The conceptual link between decentralization and innovative policies that guide our study is displayed graphically in Figure 1A of the online supplementary material.

Opportunities for Policy Innovation for Low-performing Schools

The first pathway to substantive changes is through the reduction of organizational inertia. Generally, major changes remain difficult to be achieved due to the organization's path dependency to keep the trajectory of resource investment (Christensen, 1997) and to allocate resources in established routines (Gilbert, 2005). Increased latitude may contribute to solving this problem by providing momentum for an organization to initiate a shift away from past centralized practices. In other words, it may trigger an organization to relax such rigidity and inertia (West, 2017) embedded in their predisposition in terms of whether and where to allocate available resources as well as how to manage such processes (Gilbert, 2005).

A second pathway to significant change is through stronger congruence between policy and local needs (Fuhrman & Elmore, 1990; Schoen & Fusarelli, 2008; Weiss & McGuinn, 2016). Understanding local conditions is critical for government agencies to better support high-needs schools, as their poor performance often stems from the interaction of limited resources and conflicting needs among multi-actors, and constantly evolving contexts in which such interactions occur. Actors at the lower level are generally better positioned than distant national legislators to have insights into the specific challenges faced by each struggling school and identify effective solutions tailored to their unique circumstances. Thus, when state government agencies and elected officials are given legitimate opportunities to control resources, they can reshape the blueprinted types of generic interventions by designing more attuned educational infrastructures to their own circumstances.

These routes would be further facilitated by politically accountable elected officials and their staff who prioritize the preferences of local communities in order to secure re-election (Walker, 1969). With the combinative function of better access to neighborhood information and greater incentives for responsiveness, subnational units can allocate local resources to solve problems more appropriately (Bardhan, 2002). This will in turn encourage lower authorities to look beyond mere compliance and to experiment with more divergent, creative paths.

Contextual turbulence, such as a restoration of state educational authority, can also inspire state innovations. One study, using a microeconomic modeling approach, found that the back-and-forth movement of administrative controls between federal and state governments creates conditions that promote greater efficiency of the policy experimentations than when states are left alone (Callander & Harstad, 2015). Extended to the current education policy context, states burdened by federal regulations may be motivated to enact stark changes from the mandated rules soon after massive federal control, like that of NCLB, comes to an end.

Challenges in Policy Innovation for Low-performing Schools

In contrast, some researchers express slight skepticism about the promising impacts of the retrenchment of federal authority and augmentation in state leadership in school turnaround (e.g., Goertz, 2005; Polikoff et al., 2014; Weiss & McGuinn, 2016). One concern is that not all SEAs are well-prepared in terms of expert knowledge and financial resources (Childs & Russell, 2017; Cohen D. & Moffitt, 2010; McGuinn, 2012; Sunderman & Kim, 2007; Wong, 2015) to make new investments in experimenting with alternative turnaround strategies. These arguments are largely aligned with organizational learning principles (Cohen W. & Levinthal, 1990) and the punctuated equilibrium theory (Romanelli & Tushman, 1994) if primary actors are viewed as state government and information is viewed as any type of knowledge and resource. At the

common theoretical center of these perspectives is the notion that one's decision-making may be bound by one's existing ability to process new information acquired inward and outward (Simon, 1991). Interpreted in our context, even if the federal government provides appreciable authority to states over crafting structures, processes, and programs for schools serving underserved, high-poverty students, if a state has a limited *absorptive capacity* to leverage the leeway (Cohen W. & Levinthal, 1990), then a state may make the least progress in overcoming the inertia to deploy the resources or manage processes that enable resource allocation. This is because vertical power sharing in and of itself does not spawn capacities to identify root causes of failure, hit on creative solutions to fix unique problems, and provide technical assistance to the lower levels.

Another line of research similarly presents a contradictory angle to proponents of flexibility. They find that political dynamics take strong roles in new policy formulation in which few meaningful accommodations are favored by states' decision-makers. State legislators, from an intergovernmental standpoint, may prefer free-riding off policy experimentation with a known consequence elsewhere rather than investing in responsive approaches with a risk of failure (Strumpf, 2002). Furthermore, enacting transformative changes could be challenging in the absence of strong political cover from the federal government, even if state officials embark on new reform initiatives (Hess & Petrilli, 2005; Loveless, 2007). In parallel, internal political tension among stakeholders with competing priorities could introduce only marginal, symbolic changes in school turnaround policies. Schueler and West (2022) offer suggestive findings that regard this argument, revealing statewide strong public support for state activism in turning around schools, yet they found lower levels of public support for the state-led takeover of underperforming districts, particularly among local communities most directly affected by these policies. Since a state takeover could be translated into a weakening of the economic or political

power of non-White majority communities in high-needs districts (Schueler & West, 2022), state leaders may feel disincentivized to try out costly ideas with unknown returns that, if successful, would primarily benefit a limited number of local marginalized groups.

Empirical Evidence of the Link Between Decentralization and Policy Innovation

Presumably one of the most relevant policy cases for this study is the NCLB Waiver, where the federal government handed control and responsibilities back to state education agencies to drive changes for disadvantaged students in high-needs schools (Dougherty & Weiner, 2019). Launched in 2011, over 80 percent of states were given discretion in two key areas of accountability systems: identifying schools in the greatest need of improvement, and developing and implementing creative strategies to support them (Wong, 2015). Based on the analysis of 42 approved waiver applications, Polikoff et al. (2014) found mixed evidence, with states making substantive changes while also complying with bureaucratic rules. For example, many states have started to incorporate non-test-based measures such as college/career readiness, attendance, or school climate into their identification strategies for lowest-performing schools. Meanwhile, the authors observed that few experiments were conducted in their attempts to include additional subjects other than math and ELA, nor to account for the multiple years of performance in the growth measure. The work of Wrabel et al. (2018) further provided insights that states' tendency to retain already-established federal routines or to embark on new initiatives was related to internal state politics and capacity for reform, which varies across states.

Another line of studies looked at state accountability plans under the ESSA in which the federal government stepped back from the responsibilities to design and implement school improvements and state governments managed innovative learning opportunities for students. Reviewing accountability plans in all 50 states and the District of Columbia, Aldeman et al.

(2017) found that most states remained stuck in their established routine or embarked on only slight modifications to their support system. For example, out of 34 states, not a single one utilized the additional 3% reservation of their overall Title I funds for direct student services in their ESSA proposals. Similarly, critical voices from federal or state leaders highlighted the uncreative approach of states towards schools serving vulnerable students (McGuinn, 2019). Both researchers suggested that much of the gap between the ESSA goals and early findings of state practices could be partly attributed to a lack of useful information and detailed non-regulatory guidance aligned with the requirements of the new law (Rentner et al., 2017).

The little consensus regarding the decentralization-innovation link in past studies has led to calls for more research that accounts for sources with unsettling results. Chief among these lies in the complexity of American federalism in education where a varying mix of organizational inertia, capacity, and politics play out in a multi-layered, ever-changing reality (Grissom & Herrington, 2012). We believe cross-state variations along the policy innovation under American federalism themselves may be informative for dissolving a complex picture, as they present a more extensive range of evidence of when and how subnational units chart non-routine paths for improvement in which areas. Rather, we think the bottleneck for advancing our theoretical understanding of this link is partly anchored in methodological challenges to capture complex heterogeneity in a systematic way, including the measurement of innovation. The existence of multiple configurations of innovation, encompassing variations in definition, agency, scale, scope, and time frame, can result in incongruous empirical evidence. Relatedly, from a practical standpoint, the relativity of innovation (Walker, 1969) may pose additional challenges to communication and/or coordination among government agencies at different levels or across different states pushing for similar changes in monitoring the achievement of policy

goals. Of course, this interpretive flexibility in innovation may not be a new concept within debates in intergovernmental relations. However, beyond that—in areas where each government entity interprets new solutions differently, when, and why, and, more importantly, how to ensure mutual understanding toward educational innovation as a policy goal—has been rarely examined. Therefore, the next question would be: What analysis tools are available to assist various government entities in tracking the attainment of policy objectives, while fostering mutual understanding of the alignment and divergence from each entity's perspective as well as from the perspectives of other entities over time? It is these questions we attempt to answer by developing a clear conceptualization and measurement of innovation in the next section.

Conceptual Framework: Innovation as Exploitative Learning and Explorative Learning

This paper presents a new analytical framework drawn from March's (1991) organizational learning framework. This approach has its roots in the view that innovation is the outcome of an organization's strategic learning of a knowledge base, which has been often used to observe mechanisms of policy innovation (Berry & Berry, 2007). Hence, it draws attention to the knowledge, information, and resources that have been considered an important conduit of continuous school improvement (Cohen D. & Ball, 2007; Honig, 2008). March (1991) introduced two different, yet interrelated types of learning activities, 'exploitation' and 'exploration,' to describe how organizations systemically acquire, interpret, integrate, and disseminate knowledge to adapt to a rapidly changing environment while remaining efficient. Exploitative learning behaviors are related to the use and refinement of a pre-existing knowledge base but are not limited to "production, efficiency, selection, [and] implementation" (March, 1991, p.71). In contrast, explorative learning behaviors are related to the navigation of new possibilities, but are not limited to "risk-taking, experimentation, play, flexibility, [and]

discovery" (March, 1991, p.71). Prior scholarship shows that subnational agents engage in both incremental adjustments to refine existing knowledge and routines (Fuhrman & Elmore, 1990), as well as actively seek out new knowledge and assimilate significant changes from external sources through policy circles like the Council of Chief State School Officers (Riley & Meredith, 2017). Consequently, we propose that March's (1991) organizational learning framework provides a suitable approach to quantifying and characterizing the patterns of policy change.

Researchers like Li et al. (2008) argue that an organization's exploitative innovation and explorative innovation can be distinguished according to the distance between the knowledge base in which each type of innovation is grounded. However, questions remain: How do we systemically measure the distance between conventional knowledge and new knowledge? While previous studies on the scale of educational innovations underscore the geographical dimension (e.g., Preston et al., 2012), we construct a framework around both the temporal and cognitive dimensions. This approach enables us to feature changes between pre- and post-decentralization periods and explain knowledge processing of different levels of government.

Temporal distance considers the history of a knowledge base as a reference for the creation of new knowledge (Nerkar, 2003). Indeed, organizations may elicit new knowledge and practices from a temporal locality, that is, by scanning the near, recent experiences and knowledge and combining them with current knowledge (i.e., temporal exploitation). Alternatively, they may challenge this approach, casting light on the remote, older knowledge inputs and discovering new ways of interpreting them in the current context (i.e., temporal exploration). The notion of temporal dimension has been used in many forms to evaluate innovation in education. One such example is presented by Vincent-Lancrin et al. (2019) who defined what amounts to be innovation at the classroom or school levels: The greater the shifts in

teaching practices and resources in a given domain that students are exposed to between at least two different time points, the greater the levels of innovation are taking place.

Cognitive distance refers to the level of shared familiarity between new knowledge and extant knowledge in terms of the content (Li et al., 2008). It is another key dimension to understanding the characteristics of innovation that organizations seek through boundary crossing. The concept also recognizes that being "new to the world" involves more cognitive exploration than being "new to the organization" itself (Ahuja & Lampert, 2001). Studies reflecting cognitive distance in education can be found in a number of publications that note the diffusion of highly visible policy ideas at a national scale such as school choice (Mintrom, 1997). Empirical research on organizational evolution reveals that exploration of promising possibilities tends to occur more often across organizations with distinct levels of professional knowledge (Rosenkopf & Nerkar, 2001) or institutional knowledge (Zukin & DiMaggio, 1990). In contrast, exploitation is more likely to occur across organizations with homogeneous knowledge bases.

While temporal and cognitive distance tells us much about the different aspects of knowledge search, they are not mutually exclusive of each other. Thus, retaining essential logic, we operationalize the degree of exploitation/exploration along the temporal and cognitive dimensions as follows. If a state's new approach after decentralization maintains the status quo, the temporal distance between the new and preexisting approaches is considered extremely proximate. Conversely, if the new approach departs from the status quo, it is considered temporally distant. To this, we add the cognitive dimension. That is, within the temporal changes, if the new approach uses earlier strategies with slight modifications already familiar to the state or federal government, respectively, the cognitive aspect of new initiatives is considered local. In contrast, if the new approach is unfamiliar compared to the existing strategies of a given

entity, it is mapped onto the distant knowledge search. Given the stickiness of information (Von Hippel, 1994), the same principle is applied to cases where knowledge is transferred across different organizations, professional fields, and subunits at different levels.

Consistent with Lavie et al. (2010), this study arranges both exploitative and explorative innovation along a single continuum with two bipolar ends, rather than as two independent modes. Such a dualistic perspective is justified due to not only an organization's transitive dependencies between exploitation and exploration but also to the relative nature of these two concepts. Indeed, organizations may constantly switch between exploitative learning and explorative learning over time to adapt to environmental turbulence. They leverage preexisting knowledge and structures to create a new set of strategies for experimentation; such new alternatives become established routines, generating further opportunities for modification and refinement. Understanding these shifting patterns is best achieved by viewing them as "zero-sum game" along the continuum (Gupta et al., 2006, p. 695). Thus, the relative position of an organization on this continuum indicates the extent to which its design, strategy, and behavior rest on a combination of both existing and new knowledge, with varying weights.

Organizations may seek to find optimal combinations of exploitation and exploration, but the contradictory nature of these approaches creates a dilemma surrounding the allocation of limited resources, reinforcing one type of learning over the other (Levinthal & March, 1993). For example, they may strategically tend towards existing routines with predictable returns, as adaptation helps them to find solutions using relatively fewer resources. Early wins and high-efficiency gains through exploitation may lead them to focus more on exploitation, resulting in a "success trap" where proximate success gradually reduces their capabilities and incentives to explore fresh insights, repeating the same recipes. Conversely, they may tend less towards past

routines and knowledge as alternative strategies help them to gain strengths in a rapidly changing environment. While such resource-intensive, future-oriented arrangements may bring in failure rather than a successful outcome in practice, this provides organizations with positive reinforcement for further exploration. This then results in a "failure trap" where failure drives them to look for newer alternatives with a greater risk of failure.

Despite the inherent paradox of exploitation and exploration, organizations sometimes manage interwoven tensions by pursuing both simultaneously, yet in separate units, domains, or timelines. This strategic domain separation has also been observed in education innovation studies. For instance, charter schools, often viewed as laboratories (Lubienski, 2003), show higher engagement in the new practices in the administrative areas of governance and staffing policies or parental involvement, while experimentation in class-level instructional support is relatively lower compared to traditional neighborhood schools (Preston et al., 2012; Smith et al., 2011). For this reason, we propose the degree of exploitation-exploration can and should be examined by the subcategories of education function.

In addition, the cognitive dimension of innovation provides active support for assessing policy innovation through two separate lenses: the state and the federal government. Concern over a free ride on innovation by others has led a state government to focus more on the strategies that would work within their own context, rather than strategies that would work for both themselves and other states (Callandar & Harstad, 2015; Strumpf, 2002). Therefore, it is more likely that states gauge the degree of novelty in their new approaches by comparing them to their own past interventions. In contrast, the federal government may prefer significantly different approaches, that is, *new to the country*, not *just new to a few states only*. Thus, when the federal government assesses the cognitive aspects of innovation, it may compare them to existing

federal mandates as well as already prevalent approaches in other states prior to decentralization. In this regard, it would be reasonable to examine patterns of exploitation and exploration in multiple domains from both the state and the federal government perspectives.

Data and Methods

Our case study proceeds in three steps. First, we develop a conceptual framework using March's (1991) organizational learning to guide the analysis of a state's new support system. Second, we conduct a content analysis to assess the temporal and cognitive aspects of each item within the system, considering both federal and state government perspectives across four education functions. Finally, we map the results on a quadrant and characterize them based on the exploitation-exploration framework (see Figure 2A of the online supplementary material).

Analytic Sample: Florida's Differentiated Accountability Pilot Program

This study draws on a case of a waiver program, *the differentiated accountability pilot* in Florida. The program was launched by Margaret Spellings, a former secretary of the Department of Education (USED) under President Bush. As controversy surrounded the prescriptive school turnaround approaches mandated by NCLB, Secretary Spellings promised increased flexibility to encourage states and local leaders to develop more nuanced accountability systems (Doan, 2008). The Secretary emphasized policy innovation as one of the goals of this plan, which was well stated in her letter to Chief State School Officers (USED, 2008a), "This plan, Building on Results, is designed to improve accountability by *providing additional flexibility* for *innovation* while working toward grade-level proficiency for all students in reading and math by 2014" (emphasis added by the authors). To fulfill this promise, the Bush Administration initiated a differentiated accountability pilot program in 2008.

Florida's case provides a unique opportunity toward extending our understanding of state

responses to increased discretion in school turnaround. The pilot neither promised additional funding nor compromised their continued focus on equity and accountability—NCLB's 100% proficiency goals and annual assessment requirements—in return for the flexibility (USED, 2008a). Moreover, in contrast to alternative federal policy initiatives such as NCLB waivers and Race to the Top, which stipulated the adoption of teacher evaluation and common core standards, the pilot program remained relatively unintrusive in terms of regulatory demands. Instead, it primarily mandated the sustained utilization of the Adequate Yearly Progress (AYP) metric and the provision of Supplementary Education Services (SES). The pilot program allowed the state to retain existing arrangements, providing insight into how a state responds to a change in policy instrument.

Data collection

Data for this study comprises 46 publicly available policy documents on school turnaround programs and relevant research. These documents include legislation, technical assistance reports, guidelines, and proposals published by federal or state governments which were mostly sourced from the websites of USED and each state. Two sets of search terms were entered into each website: 1) those that indicate relevant initiatives including "differentiated accountability," "school turnaround," "restructuring," or "corrective action": 2) those that combine general initiatives and intervention targets such as "school improvement AND low performing schools," or "professional development AND low performing schools." In addition, relevant research briefs and technical reports published by research institutions were reviewed to pursue a more comprehensive collection of data and to gain a better understanding of the context in which the support systems were situated. A sample list of the analyzed documents is presented in Table 1A of the online supplementary material.

Of these, Florida's guidance for implementation serves as a primary source of data, offering specific insights into how innovation is perceived by the state agency. The guidance outlines a list of interventions, both changed and existing, that are labeled by Florida SEA. To understand the characteristics of self-reported changes based on Florida's previous system and federal mandates, relevant documents from 2005 to 2010, along with the school turnaround provisions of NCLB in 2001, were collected.

The study periods for pre-decentralization are determined based on two considerations: interstate variations in the timing of implementing restructured practices and the potential for modifications in reform plans. The pre-decentralization phase covers 2005-2007 school year, factoring in the different launch times of corrective actions and restructuring plans among states. The post-decentralization phase includes a two-year period from 2008 to 2010 to capture any adjustments or changes in reform plans and implementation timelines (McGuinn, 2012).

We also consider policy documents and studies on the school turnaround plans in California, Georgia, Maryland, Michigan, and Ohio issued from 2005 to 2007 to capture the cognitive aspects of innovation viewed from the federal government's perspective (i.e., whether Florida's new school turnaround strategies are *new to the country*). We selected this group of states using a two-step procedure. First, we identified states that were at the forefront of efforts to develop school turnaround plans (Scott, 2008) before Florida launched new plans. An underlying assumption is that when the federal government assesses the degree of innovativeness in provisions of a given state, it would compare the state with other pioneering states, rather than later groups that may not have readily identifiable turnaround strategies in place. The U.S. Government Accountability Office (GAO) published a report in 2007 that analyzed statewide systems for schools in corrective actions or restructuring status, and thus the school turnaround

approaches of some pioneer state groups may have been known to the federal education agency in 2008. Following approaches that resemble those of GAO (2007), we filtered the samples through a maximum variation sampling strategy based on geographical location, state size, and the number of schools in turnaround stages, resulting in a limited sample of five states being included in the comparison states for the federal government. We expected that the federal government would perceive Florida's post-decentralization plans as cognitively familiar if they resemble strategies that have already been proposed in these five states and NCLB.

Data Analysis

We conduct a content analysis using a predetermined conceptual framework (Hall & Steiner, 2019; Hsieh & Shannon, 2005) to assess the innovativeness of school turnaround strategies. Content analysis is characterized by systematic coding and categorization through the appraisal of texts (Bowen, 2009), allowing us to identify recurring themes and patterns in written materials. The results of content analysis are visualized using quadrant mapping, a tool to visualize the extent and characteristics of the innovation in Florida's new turnaround efforts in light of the conceptual framework.

The unit of analysis is a text passage. Relevant passages within the documents are identified and classified into four subcategories based on the domains of decision-making defined by the Organization for Economic Cooperation and Development (2018). These subcategories, customized to reflect broad areas of decision-making across different levels of government, include teaching and learning, personnel management, planning and monitoring, and resource management. Teaching and learning encompass interventions related to instructional systems, curriculum alignment, and assessment practices. Personnel management concerns staff hiring, duties, and conditions. Planning and monitoring are closely linked to the

traditional roles of SEAs such as the development of improvement plans and monitoring of the implementation. Practices relevant to allocating and managing supplementary resources for educators and students such as transportation fall into the domain of resource management. It should be noted that not all the new approaches should necessarily indicate improved strategies (McLendon et al., 2005). However, they are generally aligned with studies on effective schools.

Next, each provision in Florida's new school turnaround strategies is evaluated along the temporal and cognitive dimensions. The analysis involves four-stage operations using coding schemes constructed a priori. The initial two phases focus on the FDOE's perspective. A given post-decentralization provision is coded as either status quo or transformation, depending on whether it continues existing strategies from NCLB and Florida's previous school turnaround plans (temporal dimension). Within the list of reported changed interventions, a given strategy is coded as either novel if unknown, or as familiar if known compared to Florida's existing school improvement strategies based on a broader spectrum of internal artifacts including annual reports, handbooks, or news materials (cognitive dimension). It is worth highlighting that interventions categorized as cognitively novel are those specifically intended to reshape organizational routines and structures. This classification is rooted in their intrinsic association with 'out-of-the-box' thinking and their potential to enhance organizational outcomes. However, if a similar idea from the new plan has been previously integrated into the organization's routines but within a different context, it is presumed that the FDOE would regard such ideas as cognitively familiar.

After coding all of Florida's guidelines, the percentage of provisions classified as temporally and cognitively explorative is calculated and visualized on a quadrant. The proportion is tabulated to capture the heterogeneous patterns of innovation within each educational function

and then is aggregated to indicate overall innovativeness in school turnaround strategies through the lens of the FDOE. The quadrant maps each parameter, with the X value representing the extent of temporal innovations and the Y value representing the extent of cognitive innovations.

In the next two phases, the analysis shifts to the perspective of the federal government. For the temporal aspect, the same analysis procedure and materials are used, coding provisions as transformation if they are not documented in NCLB and the FDOE's old school turnaround strategies, otherwise as status quo. For the cognitive analysis, we revisit and categorize pertinent statements regarding school turnaround, with a specific focus on the strategies that coincide with changes in organizational structures and routines. The sole distinction lies in the inclusion of policy documents from Florida, alongside those from five additional states and the federal government, providing a basis for comparison from the federal perspective. Florida's post-decentralization interventions classified as changed by the FDOE are compared line by line with these high-level statements to determine the extent of creative changes. If a post-decentralization intervention differs from pre-decentralization provisions from the five other states and the federal government, it is assessed as 'novel' in terms of its cognitive aspect. Conversely, if a given intervention is deemed a minor modification to existing organizational routines from each source, it is coded as 'familiar.'

Finally, the percentage of exploitative or explorative provisions is calculated from the federal government perspective for each education function. These percentages are plotted in the corresponding quadrant, allowing for a comparison of innovation levels resulting from state responses to decentralization and policy goals. A codebook example is provided in Table 2A and 3A of the online supplementary material.

Results

Before discussing the findings for the first research question, we briefly summarize Florida's new system to support low-performing schools under decentralization.

The most distinctive feature of Florida's new model involved the consolidation of federal and state accountability systems (FDOE, 2008a). For example, Florida defined at-risk schools based on the combination of four measures: a percentage of AYP criteria met, years identified as Schools In Need of Improvement (SINI) status, Title I receipt status, and A-F school grades. While AYP was mandated by the federal government, the selection of the other three indicators was left to the state's discretion. Based on these measures, schools were grouped into three categories: no intervention schools, targeted support and intervention groups, and comprehensive support and intervention group. The comprehensive support and intervention group, our point of interest, included three subgroups: 'Prevent schools' consist of schools that met less than 80% of AYP criteria and/or D or F grades for more than two consecutive years, 'Correct schools' that failed to meet AYP criteria for more than five consecutive years, and 'Intervene schools' with repeating F grades with 65% or more of non-proficient students in reading or math.

While support and requirements for low-performing schools contained some common components, schools in each classification were provided with an escalating intensity level of interventions as their performance declined. In addition, the roles and responsibilities of the FDOE and local school districts were increased in more challenging schools. Some of those services such as data collection and monitoring, professional development, and direct support/established network were delivered through the regional support system where regional leaders, school improvement facilitators, and connecting partners coordinate reform.

As shown in Table 4A of the online supplementary material, personnel management accounted for the highest percentage of strategies in Florida's new school turnaround plan,

representing 32.35% of all strategies. This was followed by planning and monitoring at 27.94%, resource management at 23.53%, and teaching and learning at 16.18%. Interventions in personnel management mostly focused on staffing struggling schools with effective principals, leadership teams, teachers, and staff members with a demonstrated record of success in a similar setting. The planning and monitoring section addressed an eight-step problem-solving model, action items targeting subgroups not making AYP, and progress monitoring using student achievement data. Interventions in resource management consisted of direct support for students through the expansion of supplementary educational services and capacity building of leaders and teachers. Interventions with a focus on teaching and learning included a broad range of strategies such as screening, diagnostic, and progress assessment at the student level, and the establishment of an integrated data system for tracking students' progress over time.

Temporal Innovation in Florida's Post-decentralization School Turnaround Strategies

Returning now to the temporal dimension, overall, the FDOE presented a considerable number of alternative turnaround strategies in the wake of decentralization (see Table 1). While 45.59% of interventions remained unchanged, 54.41% of them, be it small amendments or fully fresh, original approaches, contained components that differed from the previous effort. This observation seems to hold from the vantage point of the FDOE or the federal government.

Figure 1 shows a percentage of temporal changes made in Florida's turnaround plan by four education functions. The first value of each ordered pair corresponds to percentage changes in those before and after the decentralization. A greater value in either the temporal or cognitive dimension denotes a higher exploration orientation of a given state (i.e., lower exploitation), whereas a smaller value denotes a higher exploitation orientation of a given state (i.e., lower exploration). A majority of personnel management arrangements (77.27%, n=17) were

redesigned, which include: 1) The principal is assigned to a professional partner with experience in increasing student achievement; 2) High-performing teachers from high-performing schools are transferred to the lower-performing schools; and 3) The assigned principal is experienced in turning around a similar school. Changes were also made in 50% (*n*=8) of strategies in the domain of resource management. SES, for instance, were expanded to schools in need of improvement in year 1. Resource management was planned for building a computer-based analytical system that enabled educators to have direct access to students' academic progress in real-time. Similarly, changes were underway in 42.11% (*n*=8) of interventions in the domain of planning and monitoring. For example, the FDOE proposed more frequent analysis of progress monitoring in tested core-content areas at the school level, and intervention schools were requested to generate more concrete plans to address equitable access to technology resources. While relatively small compared to temporal changes in previously mentioned domains, 36.36% (*n*=4) of interventions in teaching and learning were accompanied by changes. The implementation of evidence-based curriculum programs aligned to the Next Generation Sunshine state standards is one such temporal change. Altogether, the state's administrative support spaces display a notable inclination towards temporal exploration, with a specific focus on the personnel management domain.

Cognitive Innovation in Florida's Post-decentralization School Turnaround Strategies

To understand the cognitive proximity of these changes, we examined whether new interventions are reflective of familiar information separately for national and subnational government agencies. The second value of each ordered pair in Figure 1 corresponds to a percentage of unfamiliar ideas out of the changes made between pre- and post-decentralization. Overall, 21.62% (*n*=8) of changes made after the decentralization were composed of relatively

novel experimentations that were not included in their older school turnaround plans, evaluated from the perspective of the FDOE. That is, the remaining 78.38% (*n*=29) of such changes were carried-over strategies with a slight modification of either federal mandates under NCLB or state extant practices. Viewed from the vantage point of the federal government, 18.92% (*n*=7) of interventions with temporal changes stand on the ground with relatively untapped knowledge and resources, and the remaining 81.08% (*n*=30) contained a blend of new ideas and NCLB mandates or preexisting strategies found in school turnaround approaches of five states. A limited number of unprecedented solutions, pertinent to both state and federal governance, surfaced predominantly within the arena of human resource management. Furthermore, all approaches in teaching and learning, at its core, are the refinement or recombination of what is known and was instituted under NCLB such as evidence-based curriculum programs and progress monitoring.

On the whole, we see common patterns of cognitive innovation between the FDOE and the federal government. Out of the 37 temporal policy changes for high-needs schools, 72.97% (*n*=27) of them were identified as essentially familiar with predecessor strategies, whether looked at from a state or federal angle. An illustration of this could be the implementation of Response to Intervention (RtI), which incorporates an integrated data collection and assessment system to guide decision-making at each tier of service delivery. This systematic approach to school turnaround partially aligns with the core components mentioned in the NCLB, the 2004 reauthorization of IDEA, and Florida's continuous improvement model. The assignment of coaching staff to schools identified as at risk of turnaround or likewise the expansion of supplemental educational services to schools categorized as SINI 1 exemplifies the extension of existing strategies to a wider range of stakeholders. Florida also introduced some universally new

and different thinking (13.51%, *n*=5), emphasizing, for instance, the statewide systematic performance appraisal of principals and other leadership team members based on student achievement goals, staffing schools with qualified student support service personnel with demonstrated student achievement improvement, and transfer of high-performing teachers from high-performing schools to persistently low-performing schools.

On the contrary, as is visually demonstrated through the juxtaposition of the positions of individual points on the vertical axis in Figure 1, incongruent aspects of cognitive innovation between the state and federal government become evident. To illustrate, the largest gap in the extent to which new decisions were considered as unknown was in the domain of personnel management: 47.06% (*n*=8) of which were identified to be an exploration of novel ventures for the FDOE (compared to 52.84% that involved the exploitation of existing strategies and resources), whereas 29.41% (*n*=5) of the temporal changes could be classified as exploratory in nature for USDOE. These differences primarily manifested in the provisions of building strong leadership teams, specifically referring to school-based leaders other than principals, with prior success in increasing student achievement or turning around low-performing schools to manage improvement efforts. While this approach has been a stated path to take in Michigan or Maryland before decentralization, there is scant evidence of Florida's past school turnaround endeavors emphasizing the formation of school leadership teams with a proven track record in student achievement improvement. This suggests that the USDOE and the FDOE might have a different sense of cognitive proximity around the provision.

Conflicting views between national (12.5%, *n*=1) and subnational government (0%, *n*=0) were also observed in how to realign resources for professional development for teachers. This disparity is exemplified by the divergent views on practices like Lesson Study and professional

learning communities. The Florida Department of Education (FDOE) embarked on the collection of data pertaining to teachers' participation in lesson study groups as early as 2002, utilizing surveys integrated into the staff information system. The underpinning of job-embedded professional development via collaborative inquiry as a standard within Florida's professional development framework was formally established in accordance with Florida Statutes Section 1012.98 (1), delineated in the Florida School Community Professional Development Act since 2006 (Florida H. R. Schools & Learning Council, 2008). However, it is noteworthy that the FDOE's evaluation team discovered incongruities in the implementation of learning communities across schools in Florida (Bergquist, 2006).

A pivotal shift occurred in 2008, granting the FDOE autonomy in devising a turnaround strategy. This prompted a reevaluation and adaptation of the concept of professional learning communities to tackle the specific challenges faced by struggling schools. The outcome materialized as an integration of collaborative teaming structures through a specialized type of professional learning community—the Japanese "Lesson Study." Florida was an entrepreneurial state to implement the Lesson Study as a statewide school turnaround initiative (Akiba & Wilkinson, 2016), whereas it had not been commonplace as a statewide approach in the five states observed here. This distinctive approach, thus, may be deemed unorthodox from the federal government's standpoint.

The incorporation of a problem-solving model into a school improvement plan furnishes another instance of possible opposing views between the federal (12.5%, n=1) and state governments (0%, n=0) concerning the cognitive aspects of planning and monitoring changes. While initially framed to elevate academic standards for students with learning disabilities in general classrooms (Prasse, 2006), Florida's problem-solving model, which dates back to 1991,

transcends special education by fostering a comprehensive, multi-tiered approach (Batsche et al., 2007). Florida's model signifies the state's sustained commitment to infrastructure development and capacity-building for a holistic school improvement process. Engaging the entire school community, it encompasses goal-setting, problem identification, evidence-based interventions, and rigorous evaluation. Integrated since 2006 alongside initiatives like Response to Intervention (RtI) and continuous improvement, Florida's differentiated accountability further stipulated developing school improvement plans aligned with the problem-solving framework in schools that have shown the least advancement in 2008. These findings suggest that the federal perspective may see the structured problem-solving model as a 'novel' innovation, whereas the state may regard it as an evolution born from extensive investments in infrastructure, capacity-building, and stakeholder engagement.

Discussion and Conclusion

In light of the recent evidence from the 2022 National Assessment of Educational Progress, which reveals a widening disparity in academic achievement between the top and bottom performers (Lewis et al., 2022), thinking anew and acting anew may be particularly timely and urgent now. Within the broader framework of catalyzing innovative approaches, efforts to close the longstanding achievement gap would involve a deeper understanding of intergovernmental relations to support low-performing schools. In this study, we present new empirical evidence on two types of state innovation orientation for such schools in response to decentralization.

Florida's orientation for exploitative learning broadly echoes some earlier findings of states' tendency to rely on established knowledge and routines (Aldeman et al., 2017; McGuinn, 2019; Polikoff et al., 2014). At first glance, decentralization seems to have led Florida to broadly

explore paths different from the status quo. Such exploration occurred more extensively in personnel management, yet less so in areas directly relevant to teaching and learning—standards-based curriculum development, progress monitoring, and assessment. However, a closer look at the school turnaround initiatives enacted after decentralization by Florida, the five other states, and the federal government unmasked different stories. A vast array of these changes in Florida's school turnaround were already in use under the NCLB or state accountability systems, with slight corrections or additions. Such a pattern was preponderated especially in the areas of teaching and learning, planning and monitoring, and resource management.

Given a growing backlash from states against the 'recipe book' type of NCLB reform models (Cohen D. & Moffitt, 2010; Goertz, 2005; Sunderman & Kim, 2007), it may come as a surprise that Florida utilized its hard-earned flexibility to adhere to or recombine old school improvement strategies from the pre-decentralization era. Further, these findings raise a more troubling question: Why did Florida favor explorative learning in the management of school principals, teachers, and staff? Why did they choose exploitative learning in instructional efforts?

While we can only conjecture, one plausible explanation may involve the chronic capacity challenge faced by most SEAs, as indicated by previous studies (e.g., Cohen D. & Moffit, 2010; Manna, 2010; McGuinn, 2012; Peurach & Neumerski, 2015; Tanenbaum et al., 2015). Certainly, improving schools that perennially fall behind is, by its nature, challenging work that requires long-term, intensive assistance from capable agents, encompassing curriculum planning, leadership development, teacher education, and assessment (Cohen D. & Moffit, 2010). As such, SEA's constrained organizational capacity—"the interplay of resources and knowledge within SEAs and the strategies applied to improving low-achieving schools" (Childs & Russell, 2017, p. 244)—may impede SEAs from investing in paradigmatically distinct and

meaningful ways to identify schools with the greatest needs of support, provide districts and schools with tailored technical assistance, and monitor the delivery of reform efforts. Moreover, even before decentralization and, in the present context, under the NCLB, many SEAs have touted chronic capacity constraints in the arena of "infrastructure," "professional resources," and "political resources" (Le Floch et al., 2008, pp. 3-5), resulting in limited success in carrying out mandated educational reforms (Goertz, 2005; McDonnell, 2005; Mintrop & Trujillo, 2005; Sunderman & Kim, 2007). This suggests that, without a parallel commitment to strengthening the capacity of the SEAs, affording them legal authority to craft their own path alone may hardly lead SEAs to make sharp departures from conventional strategies for poorly performing schools.

Another alternative explanation is that a state's educational interests and priorities may not align with the bold educational changes that federal policymakers desired to accomplish through decentralization (Grissom & Herrington, 2012). In this study, this misalignment is observed in the program application process. For example, Secretary of Education, Margaret Spellings once stated the goal of the decentralization pilot as "tak[ing] dramatic action to improve our lowest-performing schools" (USED, 2008c) and set priority on the proposals with "innovative models of differentiation and interventions." (USED, 2008d) Meanwhile, Commissioner of the FDOE, Eric Smith considered this pilot as a legitimate opportunity to "harmonize differences in the state and federal requirements" (FDOE, 2008b). Similar movements were seen in other states, such as Georgia and Maryland where separate statewide accountability systems had been established before NCLB and retained after NCLB. States with layered accountability systems have suffered from confusion because dualistic systems send mixed signals to the education community regarding how districts and schools are doing and what should be done to help them improve (Linn, 2005). Furthermore, one could imagine that

scarce organizational slack resources in struggling schools (Payne, 2008) may undermine teachers' capacity and time to learn entirely new strategies all at once. Hence, the FDOE may have strategically leveraged flexibility available through decentralization to gradually streamline existing approaches and effectively deliver services to vulnerable student groups, maintaining coherent reform efforts, rather than seeking a fundamentally novel approach. That being said, some might see Florida's attempts to merge dual accountability systems as a bold experiment. However, we argue that simply consolidating components of state and federal systems while keeping them running separately may not qualify as 'exploration', as it is unlikely to prompt substantial changes that build on the strengths of each system.

Above all, a state's orientation toward extending existing school turnaround strategies may be the result of the interaction among the political dynamics surrounding the accountability, competing priorities, and capacity constraints of SEAs layered upon the pre-existing policy and state context. Florida has been under ongoing accountability pressure for achieving an early boost in student performance since the administrative decentralization did not exempt them from the NCLB's ambitious goal of all the students reaching proficiency levels in reading and math by 2014. Nevertheless, in exchange for discretion, states could no longer use powerful 'political cover' from the federal government making harsh choices that might bring a breakthrough in underperformance (Hess & Petrilli, 2005; Loveless, 2007). Moreover, turning around the most-in-need schools has been an area where a myriad of entities including SEAs have seldom reported success at providing them with appropriate technical aid due to limited knowledge and skills about how to improve these schools (Cohen D. & Moffitt, 2010; Meyers & Smylie, 2017; Peck & Reitzug, 2014). Such tensions and trade-offs in combination, then, may have led state officials to strategically respond to the imperative accountability pressure on the performance in

the form of refining existing systems for greater efficiency within a short time span (i.e., success trap) rather than of involvement in experiments with unknown payoffs.

Likewise, the interplay of these factors may partially account for why exploitative learning is more dominant in some educational functions than others. The foreseeable returns from exploitative learning with lower risk may appear to be a more attractive option for state officials under increasing accountability pressure on students' performance. Yet, the general public's strong support for state activism in school turnaround (Schueler & West, 2022) may remind state officials to continuously signal their commitment to pushing for new opportunities for these schools. Consequently, officials may selectively prioritize certain responsibilities in visible arenas to signal exploration to the public, while making only marginal alterations in less noticeable areas. Extended to this study context, considering the substantial constraints on capacity and the weighty accountability involved, Florida state officials may have opted to showcase more sweeping changes in areas where the potential payoffs are substantial and in ways that are readily apparent, such as identifying, replacing, and retaining some school leaders and staff to demonstrate their commitment to public service. However, neither the quality of instructional services such as curriculum materials nor returns for changes in these services may be easily communicated to citizens and measurable except in the long term (Keefer & Khemani, 2005), leading to fewer feedback actions in teaching and learning over the other areas. Nevertheless, many of these speculations need to be examined in future studies.

The most notable finding of this study, perhaps, lies in pinpointing whether, where, and the extent to which the federal or state government may employ different labels on a given turnaround approach as a function of decentralization. Innovation as a policy goal is an abstract term compared to many other specific policy issues in education (Spillane et al., 2002), thereby

allowing a myriad of interpretations that leave room for an agent's cognition to speak for what qualifies as innovation. The cognitive process, which entails the "perception, interpretation, processing, storage, and retrieval of information as a basis for action", (Slembeck, 1997, p. 230) is shaped by prior knowledge, beliefs, experiences, and context (Spillane et al., 2002).

At least two sources of the cognitive processes elucidate these gaps. Firstly, the novelty or familiarity of a policy is inherently defined by its adopters (Walker, 1969). The U.S. federal government, for instance, determines an innovation by assessing whether a school turnaround strategy is cognitively "new to the nation," and not merely within a specific state or district. Secretary Spellings clearly expressed decentralization's informative value for the country without imposing risks on other regions, by saying "I hope to gain valuable information about SES from these pilot programs—information that can be shared with other states and districts to help them improve the quality of these activities" (cited in Doan, 2008, p. 220). Conversely, a state government's view on innovation is more tightly linked to its own jurisdiction boundary rather than to neighboring jurisdictions or the entire country (Berry & Berry, 2007), exemplified by Florida's self-labeled new provisions. In other words, whether an approach has been adopted by a majority of states for quite some time might not carry the same weight for a state as it does for the federal government.

Building on differing governmental perspectives, an information asymmetry may open space for distinctive characterization of a given school turnaround approach. Subnational governments as agents, being close to local realities, are generally in a better position to know about their own school conditions and needs (Fuhrman & Elmore, 1990). Moreover, they may exhibit a keener understanding of what has been tried, what worked, and what did not in supporting their schools than the federal government as a principal. Hence, unless explicit

attempts are made to fill this information gap, the federal government is subject to base decisions and monitoring on imperfect information in its breadth and depth (Laffont & Martimort, 2002), yielding inconsistent evaluation of the effectiveness of the policy instruments.

In line with Spillane et al. (2002), we do not claim that the federal government's policy intentions should be fulfilled by each state government in a normative sense. This study is far from suggesting a state's explorative learning should be the sole ideal outcome of decentralization. Neither do we argue that explorative learning is more effective than exploitative learning in reducing educational disparities. Florida's school turnaround case does, however, generate a discussion on the unduly optimistic premise that a fundamentally reoriented approach will be sparked solely by the withdrawal of national prescriptive regulation. In a decentralized education world, the prevalence of exploitative learning in policies pursuing equity—albeit temporally diverged, yet largely a coherent extension of its predecessors—may be attributed to much more complex dynamics, not all related to the mismatch among capacity, preferences, politics, incentives, and policy goals. Florida's case offers an additional perspective that the cognitive tension embedded in intergovernmental relations, often underexplored, poses challenges to reaching those goals. A lack of consideration to build a common knowledge base and the resulting misalignment in measurement may widen the gaps in actual policy learning for equity, perpetuating the broken link between the rhetoric of decentralization and reality.

Moreover, Florida's uneven path to support low-performing schools should flag a concern for scholars and practitioners. The FDOE embarked on new attempts in personnel management, while staying on established routines in areas directly related to teaching and learning of under-served students. While it is argued that this type of reform may fuel the process of breaking the inertia of poor performance, it is unclear whether this will lead to improvement

that sustains in the absence of temporary intensive support (Meyers & Smylie, 2017). Given that the switch between exploitation and exploration across different domains does not occur in a vacuum (Levinthal & March, 1993), it is worth tracking whether such initial efforts translate into experimentation in teaching and learning in the long term.

The complicated dynamics surrounding decentralization and policy innovation in school turnaround highlight the value of the conceptual framework. Although the framework is relatively crude, the education community can benefit from it in three ways.

First, the framework may broaden our conceptual understanding of policy innovation, facilitating further research. While not intended as a single universal scheme, it fosters a shared understanding of policy innovation's definition and nature. This may serve as a foundation for larger policy discussions on states' utilization of decentralization. The framework may also help us to gain insights into the patterns of policy learning within and across educational functions, as well as the trajectories of multi-level actors in the short and long term.

Second, the conceptual framework extends empirical literature regarding decentralization and policy innovation for educational equity. Despite the voluminous study on the scale-up of innovation at the school or local district level (Cohen D. & Ball, 2007) and the increasing roles of SEA (Childs & Russell, 2017; McDonnell, 2005), there has been only a small body of work on state-level patterns of innovation in education. This highlights the significance of exploring the relationship between decentralization and policy innovation in this context.

The third contribution emphasizes the practical aspect—the aspect as a generic 'toolbox' that supports the policy community to understand and monitor a portfolio of state turnaround efforts. As the policy instrument to achieve equity has shifted from sanction-based regulation to negotiation-based deregulation (Duff & Wohlstetter, 2019), so must the way in which federal

and state governments communicate with each other. In so doing, the framework can be a useful tool for both governmental officials, as it provides a quantifiable and intuitive visualization of different types of policy learning in relation to others. While specific innovation diffusion across states is beyond the scope of this study, ideally, adding an extra axis for diffusion patterns could enhance the visibility of policy coherence. Altogether, the framework may provide policymakers at all levels with collaborative learning opportunities to monitor and build common understandings of the cumulative work for at-risk schools, opening up strategic planning of resource allocation for conducting experiments within their own contexts.

Nevertheless, this study is only a first step with limitations. First, the current calculation treats all changes equally, but in practice, the significance of each change may vary. Acknowledging such a constraint, qualitative investigations of transformational policy ideas could be included. Relatedly, the selection of comparison states can influence the consistency of the results. While we were unable to fully address this measurement error, our analysis provides a conservative calibration by comparing to pioneering states in school turnaround. Another limitation is that this study examined the short-term policy changes right after decentralization, thereby not accounting for the potentially unstable nature of the learning process.

Despite these limitations, the enhancement of conceptual understanding concerning policy innovation opens avenues for further research. For instance, it may be interesting to investigate the evolutionary transition of a state's policy orientation between exploitation and exploration to improve schools with low-performing students from longitudinal perspective. A longitudinal study would be especially meaningful, as the pursuit of exploitation and exploration involve inherent trade-offs among efficiency, uncertainties, future gains, and self-reinforcing (Levinthal & March, 1993) and both the federal and state government should always make

strategic choices for successfully turning around schools with limited resources. In that sense, Exploring the driving factors and policy instruments behind this transition warrants future research to achieve educational equity and assess its impact on student performance. Building on an in-depth case study, it will be also important to develop a typology of all 50 state-level policy innovations specific to those support schools that need the most help.

References

Author, 2019

Ahuja, G., & Morris Lampert, C. (2001). Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic Management Journal*, *22*(6-7), 521-543.

Akiba, M., & Wilkinson, B. (2016). Adopting an international innovation for teacher professional development: State and district approaches to lesson study in Florida. *Journal of Teacher Education, 67*(1), 74-93.

Aldeman, C., Hyslop, A., Marchitello, M., Schiess, J. O., & Pennington, K. (2017). An independent review of ESSA state plans. *Sudbury, MA: Bellwether Education Partners*.

Bardhan, P. (2002). Decentralization of governance and development. *Journal of Economic Perspectives*, *16*(4), 185-205.

Batsche, G. M., Curtis, M. J., Dorman, C., Castillo, J. M., & Porter, L. J. (2007). The Florida problem-solving/response to intervention model: Implementing a statewide initiative. In *Handbook of response to intervention* (pp. 378-395). Springer, Boston, MA.

Bergquist, C. C. (2006). *Encouraging systemic changes in professional development: a short summary of Florida's evaluation protocol system*. Unpublished report prepared for Florida Department of Education.

Berry, F. S., & Berry, W. D. (2007). Innovation and diffusion models in policy research. In P. A. Sabatier (Ed.), *Theories of the policy process* (2nd ed., pp. 223–260). Boulder, CO: Westview Press.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27.

Callander, S., & Harstad, B. (2015). Experimentation in federal systems. *The Quarterly Journal of Economics*, *130*(2), 951-1002.

Childs, J., & Russell, J. L. (2017). Improving low-achieving schools: Building state capacity to support school improvement through Race to the Top. *Urban Education*, *52*(2), 236-266.

Christensen, C. M. (1997). *The innovator's dilemma: when new technologies cause great firms to fail*. Harvard Business Review Press.

Cohen, D. K., & Ball, D. L. (2007). Educational innovation and the problem of scale. *Scale up in education: Ideas in principle*, *1*, 19-36.

Cohen, D. K., & Moffitt, S. L. (2010). *The ordeal of equality: Did federal regulation fix the schools?* Harvard University Press.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 128-152.

Crossan, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Academy of Management Review, 24*(3), 522-537.

Doan, K. P. (2008). No Child Left Behind waivers: A lesson in federal flexibility or regulatory failure. *Administrative Law Review*, *60*, 211.

Dougherty, S. M., & Weiner, J. M. (2019). The Rhode to turnaround: The impact of waivers to No Child Left Behind on school performance. *Educational Policy, 33*(4), 555-586.

Duff, M., & Wohlstetter, P. (2019). Negotiating intergovernmental relations under ESSA. *Educational Researcher*, *48*(5), 296-308.

Florida Department of Education. (2007, June 5). *Technical Assistance Paper: NCLB School Restructuring*. Retrieved from https://info.fldoe.org/docushare/dsweb/Get/Document-4454/k12-07-81memo.pdf

Florida Department of Education. (2008a, May 2*). Differentiated Accountability Pilot Program: Florida's Proposal.* Retrieved from https://www2.ed.gov/admins/lead/account/differentiatedaccountability/flplan.doc

Florida Department of Education. (2008b, May 2). *Cover letter of Differentiated Accountability Pilot Program: Florida's Proposal.* Retrieved from https://www2.ed.gov/admins/lead/account/differentiatedaccountability/fldap.pdf

Florida Department of Education. (2008c). *Florida's differentiated accountability model: guidance for implementation 2008-09 school year.*

Florida H. R. Schools & Learning Council. (2008). *Teacher professional development programs in Florida interim project report.*

Forte, E. (2010). Examining the assumptions underlying the NCLB federal accountability policy on school improvement. *Educational Psychologist*, *45*(2), 76-88.

Fuhrman, S. H., & Elmore, R. F. (1990). Understanding local control in the wake of state education reform. *Educational Evaluation and Policy Analysis*, *12*(1), 82-96.

Gilbert, C. G. (2005). Unbundling the structure of inertia: Resource versus routine rigidity. *Academy of Management Journal*, *48*(5), 741-763.

Goertz, M. E. (2005). Implementing the no child left behind act: Challenges for the states. *Peabody Journal of Education*, *80*(2), 73-89.

Grissom, J. A., & Herrington, C. D. (2012). Struggling for coherence and control: The new politics of intergovernmental relations in education. *Educational Policy, 26*(1), 3-14.

Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of Management Journal*, *49*(4), 693-706.

Hall, D. M., & Steiner, R. (2019). Insect pollinator conservation policy innovations at

subnational levels: Lessons for lawmakers. *Environmental Science & Policy*, *93*, 118-128.

Herman, R., Dawson, P., Dee, T., Greene, J., Maynard, R., Redding, S., & Darwin, M. (2008). Turning Around Chronically Low-Performing Schools. IES Practice Guide. NCEE 2008-4020. *National Center for Education Evaluation and Regional Assistance*.

Hess, F. M., & Eden, M. (Eds.). (2017). *The Every Student Succeeds Act (ESSA): What it means for schools, systems, and states.* Harvard Education Press.

Hess, F. M., & Petrilli, M. J. (2005). The Politics of No Child Left Behind: Will the Coalition Hold?. *Journal of Education, 185*(3), 13-25.

Honig, M. I. (2008). District central offices as learning organizations: How sociocultural and organizational learning theories elaborate district central office administrators' participation in teaching and learning improvement efforts. *American Journal of Education*, *114*(4), 627-664.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to content analysis. *Qualitative Health Research*, *15*(9), 1277-1288.

Keefer, P., & Khemani, S. (2005). Democracy, public expenditures, and the poor: understanding political incentives for providing public services. *The World Bank Research Observer, 20*(1), 1-27.

Laffont, J. J., & Martimort, D. (2002). *The theory of incentives: The principal-agent model.* Princeton, NJ: Princeton University Press.

Lavie, D., Stettner, U., & Tushman, M. L. (2010). Exploration and exploitation within and across organizations. *Academy of Management Annals*, *4*(1), 109-155.

Le Floch, K. C., Boyle, A., & Therriault, S. B. (2008). Help Wanted: State Capacity for School Improvement. AIR [R] Research Brief. *American Institutes for Research*.

Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, *14*(S2), 95-112.

Lewis, K., Kuhfeld, M., Langi, M., Peters, S., & Fahle, E. (2022). *The widening achievement divide during COVID-19*. NWEA. Retrieved from https://www.nwea.org/uploads/2022/11/CSSP-Brief_Widening-achievement-divide-COVID-19.pdf

Li, Y., Vanhaverbeke, W., & Schoenmakers, W. (2008). Exploration and exploitation in innovation: Reframing the interpretation. *Creativity and Innovation Management*, *17*(2), 107-126.

Linn, R. L. (2005). Conflicting demands of No Child Left Behind and state systems: Mixed messages about school performance. *education policy analysis archives*, *13*, 33.

Loveless, T. (2007). The peculiar politics of No Child Left Behind. In A. Gamoran (Ed.), *Standards-Based Reform and the Poverty Gap: Lessons for "No Child Left Behind"*. Washington, DC: Brookings Institution Press

Lubienski, C. (2003). Innovation in education markets: Theory and evidence on the impact of competition and choice in charter schools. *American Educational Research Journal*, *40*(2), 395-443.

Manna, P. (2010). *Collision course: Federal education policy meets state and local realities*. CQ Press.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, *2*(1), 71-87.

McDonnell, L. M. (2005). No Child Left Behind and the federal role in education: Evolution or revolution?. *Peabody Journal of Education*, *80*(2), 19-38.

McDonnell, L. M., & Elmore, R. F. (1987). Getting the job done: Alternative policy

instruments. *Educational Evaluation and Policy Analysis*, *9*(2), 133-152.

McGuinn, P. (2012). Stimulating reform: Race to the Top, competitive grants and the Obama education agenda. *Educational Policy, 26*(1), 136-159.

McGuinn, P. (2019). Assessing state ESSA plans: Innovation or retreat?. *Phi Delta Kappan*, *101*(2), 8-13.

McLendon, M. K., Heller, D. E., & Young, S. P. (2005). State postsecondary policy innovation: Politics, competition, and the interstate migration of policy ideas. *The Journal of Higher Education*, *76*(4), 363-400.

Meyers, C. V., & Smylie, M. A. (2017). Five myths of school turnaround policy and practice. *Leadership and Policy in Schools, 16*(3), 502-523.

Mintrom, M. (1997). Policy entrepreneurs and the diffusion of innovation. *American Journal of Political Science*, 738-770.

Mintrop, H., & Trujillo, T. (2005). Corrective action in low performing schools: Lessons for NCLB implementation from first-generation accountability systems. *Education Policy Analysis Archives/Archivos Analíticos de Políticas Educativas*, *13*, 1-27.

Nerkar, A. (2003). Old is gold? The value of temporal exploration in the creation of new knowledge. *Management Science*, *49*(2), 211-229.

OECD. (2018). *Education at a Glance 2018: OECD Indicators*. OECD Publishing, Paris. http://dx.doi.org/10.1787/eag-2018-en

Payne, C. M. (2008). *So much reform so little change: The persistence of failure in urban schools.* Cambridge, MA: Harvard University Press.

Peck, C., & Reitzug, U. C. (2014). School turnaround fever: The paradoxes of a historical practice promoted as a new reform. *Urban Education, 49*(1), 8-38.

Peurach, D. J., & Neumerski, C. M. (2015). Mixing metaphors: Building infrastructure for large scale school turnaround. *Journal of Educational Change, 16*(4), 379-420.

Pietsch, M., Tulowitzki, P., & Cramer, C. (2022). Principals between exploitation and exploration: Results of a nationwide study on ambidexterity of school leaders. *Educational Management Administration & Leadership, 50*(4), 574-592.

Polikoff, M. S., McEachin, A. J., Wrabel, S. L., & Duque, M. (2014). The waive of the future? School accountability in the waiver era. *Educational Researcher*, *43*(1), 45-54.

Prasse, D. P. (2006). Legal supports for problem-solving systems. *Remedial and Special Education, 27*(1), 7-15.

Preston, C., Goldring, E., Berends, M., & Cannata, M. (2012). School innovation in district context: Comparing traditional public schools and charter schools. *Economics of Education Review*, *31*(2), 318-330.

Rentner, D. S., Kober, N., & Frizzell, M. (2017). Planning for Progress: States Reflect on Year One Implementation of ESSA. *Center on Education Policy*.

Riley, D., & Meredith, J. (2017, September). *State efforts to strengthen school leadership: Insights from CCSSO action groups.* Washington, DC: Policy Studies Associates for Chief State School Officers.

Robertson, P. J., Wohlstetter, P., & Mohrman, S. A. (1995). Generating curriculum and instructional innovations through school-based management. *Educational Administration Quarterly*, *31*(3), 375-404.

Romanelli, E., & Tushman, M. L. (1994). Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, *37*(5), 1141-1166.

Rosenkopf, L., & Nerkar, A. (2001). Beyond local search: boundary-spanning, exploration, and

impact in the optical disk industry. *Strategic Management Journal*, *22*(4), 287-306.

Schoen, L., & Fusarelli, L. D. (2008). Innovation, NCLB, and the fear factor: The challenge of leading 21st-century schools in an era of accountability. *Educational Policy*, *22*(1), 181-203.

Schueler, B. E., & West, M. R. (2022). Federalism, race, and the politics of turnaround: U.S. public opinion on improving low-performing schools and districts. *Educational Researcher, 51*(2), 122–133. https://doi.org/10.3102/0013189X211053317

Scott, C. (2008). A Call to Restructure Restructuring: Lessons from the No Child Left Behind Act in Five States. *Center on Education Policy*.

Simon, H. A. (1991). Bounded rationality and organizational learning. *Organization Science*, *2*(1), 125-134.

Slembeck, T. (1997). The formation of economic policy: a cognitive-evolutionary approach to policy-making. *Constitutional Political Economy*, *8*(3), 225-254.

Smith, J., Wohlstetter, P., Kuzin, C. A., & De Pedro, K. (2011). Parent involvement in urban charter schools: New strategies for increasing participation. *School Community Journal*, *21*(1), 71-94.

Spillane, J. P., Reiser, B. J., & Reimer, T. (2002). Policy implementation and cognition: Reframing and refocusing implementation research. *Review of Educational Research*, *72*(3), 387-431.

Strumpf, K. S. (2002). Does government decentralization increase policy innovation?. *Journal of Public Economic Theory*, *4*(2), 207-241.

Sunderman, G. L., & Kim, J. S. (2007). The expansion of federal power and the politics of implementing the No Child Left Behind Act. *Teachers College Record*, *109*(5), 1057-1085.

Sunderman, G. L., Kim, J. S., & Orfield, G. (Eds.). (2005). *NCLB meets school realities: Lessons from the field*. Corwin Press.

Sunderman, G. L., & Orfield, G. (2007). Do states have the capacity to meet the NCLB mandates?. *Phi Delta Kappan*, *89*(2), 137-139.

Tanenbaum, C., Boyle, A., Graczewski, A., JamesBurdumy, C., Dragoset, S., & Kallgren, K. (2015). *State capacity to support school turnaround.* National Center for Education Evaluation and Regional Assistance (NCEE 2015-4012). Washington, DC.

US Government Accountability Office. (2007). *No Child Left Behind Act: Education should clarify guidance and address potential compliance issues for schools in corrective action and restructuring status.* Washington, DC. GAO-07-1035.

U. S. Department of Education. (2008a, March 20). *Letter from Secretary of Education to Chief State School Officers regarding the differentiated accountability pilot (first cohort)*. Washington, DC.

U. S. Department of Education. (2008b, April 3). *Peer Review Guidance for the NCLB Differentiated Accountability Pilot Applications.* Washington, DC: Retrieved from https://www2.ed.gov/policy/elsec/guid/daguidance.doc

U. S. Department of Education. (2008c, July). *Secretary Spellings approves 6 states' differentiated accountability proposals.* Washington, DC: Retrieved from https://www2.ed.gov/nclb/accountability/differentiated/factsheet03.pdf

U. S. Department of Education. (2008d, August 1). *Letter from Secretary of Education to Chief State School Officers regarding the differentiated accountability pilot (second cohort)*. Washington, DC.

Vincent-Lancrin, S., G. Jacotin, J. Urgel, S. Kar., González-Sancho, C. (2019). *Measuring*

Innovation in Education 2019: What Has Changed in the Classroom? Educational Research and Innovation, OECD Publishing, Paris, France: UNESCO.

Von Hippel, E. (1994). "Sticky information" and the locus of problem solving: Implications for innovation. *Management Science, 40*(4), 429-439.

Walker, J. L. (1969). The diffusion of innovations among the American states. *American Political Science Review*, *63*(3), 880-899.

Weiss, J., & McGuinn, P. (2016). States as change agents under ESSA. *Phi Delta Kappan*, *97*(8), 28-33.

West, M. (2017). The case for ESSA: A proper balance. In Hess. F. M. & Eden M. (Eds.) *The Every Student Succeeds Act (ESSA): What It Means for Schools, Systems, and States* (pp. 91-106). Harvard Education Press.

Wohlstetter, P., Wenning, R., & Briggs, K. L. (1995). Charter schools in the United States: The question of autonomy. *Educational Policy*, *9*(4), 331-358.

Wong, K. K. (2015). Federal ESEA waivers as reform leverage: Politics and variation in state implementation. *Publius: The Journal of Federalism*, *45*(3), 405-426.

Wrabel, S. L., Saultz, A., Polikoff, M. S., McEachin, A., & Duque, M. (2018). The politics of elementary and secondary education act waivers. *Educational Policy*, *32*(1), 117-140.

Zukin, S., & DiMaggio, P. (1990). *Structures of capital : the social organization of the economy*. Cambridge: Cambridge University Press.

Table 1.

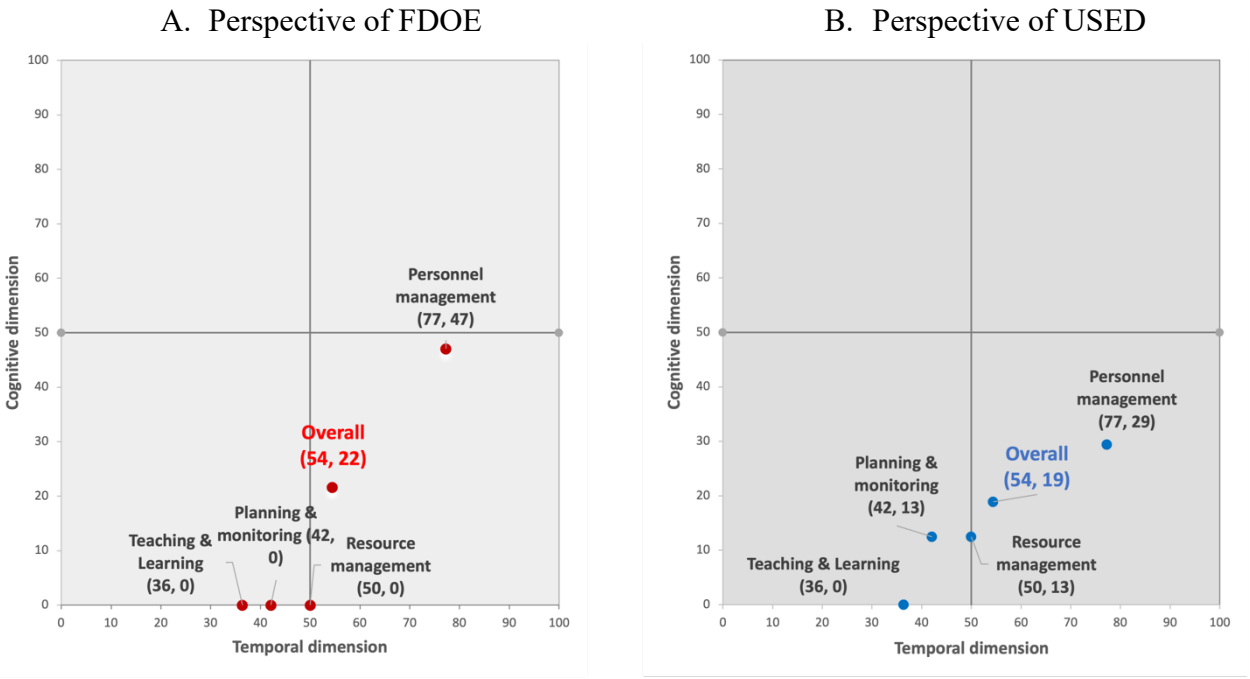
Frequency of innovation in Florida's school turnaround strategies from the perspective of Florida Department of Education (FDOE) and the federal government (USED)

Temporal dimension	Subtotal	FDOE		USED	
		Status quo	Transformation	Status quo	Transformation
Personnel management	22	5 (22.73)	17 (77.27)	5 (22.73)	17 (77.27)
Resource management	16	8 (50)	8 (50)	8 (50)	8 (50)
Planning and monitoring	19	11 (57.89)	8 (42.11)	11 (57.89)	8 (42.11)
Teaching and Learning	11	7 (63.64)	4 (36.36)	7 (63.64)	4 (36.36)
Total	68	31 (45.59)	37 (54.41)	31 (45.59)	37 (54.41)
Cognitive dimension	Subtotal	FDOE		USED	
		Familiar	Novel	Familiar	Novel
Personnel management	17	9 (52.94)	8 (47.06)	12 (70.59)	5 (29.41)
Resource management	8	8 (100)	0 (0)	7 (87.5)	1 (12.5)
Planning and monitoring	8	8 (100)	0 (0)	7 (87.5)	1 (12.5)
Teaching and Learning	4	4 (100)	0 (0)	4 (100)	0 (0)
Total	37	29 (78.38)	8 (21.62)	30 (81.08)	7 (18.91)

Note. percentage in parenthesis.

Figure 1.

Quadrant mapping of innovation in Florida's school turnaround strategies from the perspective of Florida Department of Education (FDOE) and the federal government (USED)



Note. The quadrant is represented by a function of a point with the ordered pair where the horizontal axis indicates a percentage of innovation in the temporal dimension and the vertical axis indicates one in the cognitive dimension. For example, 'Overall (54, 22)' in Figure 1(A) indicates overall, changes were found in 54% of interventions of Florida's differentiated accountability plans and 46% (=100-54) of interventions were carried over from Florida's existing school turnaround approaches. Among these, 22% of them were unknown, novel interventions to FDOE, whereas 78% (=100-22) of interventions with changes were familiar interventions with preexisting school turnaround interventions of Florida that were implemented before decentralization.