Different or Differentiated? Recoupling Policy and Practice in an Era of Accountability

Allison W. Kenney
Susan Dulong Langley
Vonna Hemmler
Carolyn M. Callahan
E. Jean Gubbins
Del Siegle

Kenney, A. W., Dulong Langley, S., Hemmler, V., Callahan, C. M., Gubbins, E. J., & Siegle, D. (2023). Different or Differentiated? Recoupling Policy and Practice in an Era of Accountability. *Educational Policy, 0*(0). https://doi.org/10.1177/08959048231153612

Abstract

Differentiation is an instructional practice teachers employ to modify their classroom content, process, and products based on student readiness, interest, and learning profile. Many school districts recognize the benefits of differentiated instruction and thus mandate allotted classroom time for its implementation. In this paper, we investigate how teachers in one such district resolved differentiation policy to practice in a high-stakes testing environment. We found, during the designated time for differentiation, teachers regularly remediated small groups but did not similarly address the academic needs of advanced students, thus not enacting the disciplinary standard for differentiation. We suggest teachers are recoupling practice and policy but misaligning it to the disciplinary definition of differentiation, which we contend has broader implications for instructional policymaking.

This work was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant #R305C200012 and #R305C140018 to the University of Connecticut. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education."

Different or Differentiated? Recoupling Policy and Practice in an Era of Accountability

The current education policy environment is characterized by high-stakes incentives—or sanctions—for student performance and improvement. School district administrators are held responsible for translating policy into local initiatives and building leaders and teachers are expected to produce the desired results. In response, districts adopt both curricular changes, relating to what students are taught, as well as instructional changes, relating to how students are taught. However, changes in curricular content and instructional practice can be difficult for teachers to accomplish. Policies seeking to alter classroom curriculum and instruction require tightly coupling with changes to teachers' beliefs and behaviors.

Within the context of a high-stakes standardized testing environment and accompanying curricular mandates, district initiatives requiring changes to curriculum and teaching practice may not be properly incentivized and can be difficult for teachers to accept, understand, manage, and/or integrate into practice. Researchers suggest that accomplishing change at scale requires district personnel to provide structures and supports to incentivize, facilitate, and sustain policy changes in schools (Ford et al., 2020). Further, while district initiatives responding to accountability policies including changes to curriculum, instruction, and teacher beliefs have at times been successful (Spillane et al., 2018; Woulfin, 2015), researchers have also found evidence that central office administrators, principals, and/or teachers may rush implementation of new district initiatives in ways that have unintended and, at times, negative consequences (Anagnostopoulos & Rutledge, 2007; Au, 2007). Ultimately, we know too little about how the high-stakes policy environment filters through the level of the district office to couple with the day-to-day practices by teachers in classrooms (Barrett-Tatum & Ashworth, 2021).

Hence, we explored how teachers responded to one district's initiative for improved instructional practice while simultaneously operating in the high-stakes policy environment. The district we studied, like most in the US operated under state scrutiny of its students' performance on statewide assessments. In response, the administrators at the district and local level expected teachers to follow a strict pacing guide. The district policy also reflected high-stakes accountability pressures by requiring elementary school teachers to allot time for differentiated instruction. The district's policy document indicated that differentiated instruction (DI) should be present in all classrooms to meet the diverse learning needs of all students, but it did not provide specific direction for implementation. As researchers, we anticipated teachers' use of differentiated instruction would reflect the disciplinary definition of the term: modification of the content, process, product, and learning environment[1] based on student readiness, interest, and/or learning profile (Tomlinson et al., 2003; VanTassel-Baska, 2005). In addition, we expected *differentiation* to refer to modification of both curriculum and instruction. Our study of teachers' responses to this district's policy suggests the stresses of a high-stakes, achievement-focused environment outweighed the efforts to enact differentiation properly. We found the goal of offering differentiated instruction for all was not carried out consistently and rigorously. We explore the possible explanation of teachers recoupling practice and policy but misaligning it to the disciplinary definition of differentiation.

Rationale and Research Questions

Differentiated instruction and teacher adaptability to differentiation are considered a "gold standard" in good teaching practice (Parsons et al., 2018). However, the diverse terms used to describe the practice—including adaptive, responsive, dialogic, innovative, and reflective—

[1] While learning environment is used in many definitions of differentiation, we were only considering classroom settings in this study.

can make it difficult for teachers to develop a comprehensive understanding of high-level implementation and for district personnel to give principals and teachers the necessary supports to execute the required adaptations (Parsons et al., 2018). In a meta-analysis of differentiation studies, Parsons et al. found that various supports such as content-focused coaching, advising on assessment of student learning, and a school context of instructional autonomy can assist teachers in developing their adaptability.

In interviews and classroom observations with teachers and principals in a district requiring differentiated instruction for a specified time each day, we examined if and how teachers discussed enacting the policy for content and/or instruction to respond to students' varied needs, levels of performance, interests, and rates of learning. In doing so, we build on prior research indicating although teachers and administrators often contend they are differentiating instruction according to expectations, in fact, classroom observations do not support that contention (Cross, 2013). We explore how teachers reported on their use of DI time and whether or not the practices they described using during this time truly reflected modifications for learners across a wide spectrum of differences. As such, we asked the following research questions: Do teachers report enacting classroom practices to align with a district policy of differentiated instruction time? Do the reported practices couple with the definition of differentiation?

Differentiation

Differentiation's meaning and a range of related terms (e.g., Kaplan, 2005; Renzulli, 1988; Tomlinson, 1995) have come from authors wrestling with the dilemma of addressing the varied academic characteristics and needs of students in diverse classrooms. We begin with an exploration of differentiation to offer a picture of its meaning in the educational literature and

better understand the contrast with what it came to represent for teachers in a district implementing mandatory DI time.

Differentiation Overview

Differentiation represents a means of fostering individual excellence and has been incorporated into broad federal policy under the Every Student Succeeds Act (ESSA), which defines *comprehensive instruction* as "us[ing] differentiated instructional approaches, including individual and small group instruction and discussion" (ESSA, 2015, p. 179). Nevertheless, policies requiring differentiation, especially those targeting gifted students and learners with disabilities, remain the purview of individual states and districts to determine and fund (Brown & Abernethy, 2009). Differentiation is situated in Vygotsky's (1978) conception of a zone of proximal development (ZPD), the distance between a student's developmental level and potential development as mediated by adult guidance or collaboration with more capable peers. Such scaffolding (Birnie, 2015) can form the basis for developing differentiated curricula to guide students' knowledge, understanding, and ability to apply concepts (Gubbins et al., 2013) and should challenge students at a level between frustration and boredom (Rubenstein et al., 2015).

Defining Differentiation

The meaning and intent of differentiation varies depending on how it is viewed as an organizational structure, curricular structure, and/or instructional structure (Kaplan, 2018). Differentiation has come to apply broadly to opportunities for students to access content, concepts, and skills using multiple entry points with more or less scaffolding. Tomlinson and Allen (2000) addressed the call to develop the talents of all students by defining differentiation "as a teacher's reacting responsively to a learner's needs" (A Definition of Differentiation, para. 1). Tomlinson et al. (2003) declared that effective differentiation is proactive, employs flexible

small groups, varies materials by individuals and small groups, uses variable pacing, is knowledge-centered, and is learner-centered. Smale-Jacobse et al. (2019) noted "differentiated instruction is a pedagogical-didactical approach that provides teachers with a starting point for meeting students' diverse learning needs" (p. 1). Their perspective reflects Tomlinson's (2009, 2014) earlier work which emphasized teachers' response to learners' needs by implementing respectful tasks, flexible grouping, and ongoing assessment and adjustment using strategies such as varied texts, literature circles, tiered lessons, small-group intervention, interest centers, curriculum compacting, and varied questioning strategies.

Research on Differentiation

Researchers have explored the effectiveness of differentiated curriculum and instruction across disciplines. Several studies have provided evidence of effectiveness of implementing differentiated curricula across elementary and middle school students (Callahan, et al., 2015; Gavin et al., 2007, 2009; Little et al., 2014; McCoach et al., 2014; Reis et al., 2011). Scholars have urged more research in this domain to document the effectiveness of differentiation and understand the structure of successful differentiation particularly in heterogeneous classrooms (Plucker & Callahan, 2020; Pierce et al., 2011).

Deunk et al. (2018) found differentiation had a small overall positive effect on academic performance when embedded in a supportive context but did not find a significant overall effect for between- or within-class homogeneous grouping, thus theorizing that grouping alone is not enough and should be accompanied by differentiated teaching practices or specific curricula. VanTassel-Baska (2006) similarly found differentiation was more effective when embedded in a broader context with professional learning sessions to help ensure implementation and quality. Dixon et al. (2014) determined teachers who received more professional learning opportunities

believed they were more effective in differentiating, while Hawkins (2009) described challenges to differentiation including teachers lacking confidence, efficacy, and perseverance and cited the importance of teachers' knowledge of innovations, management strategies, and depth of content knowledge as contributors to sustained efficacy of differentiation. Importantly, Hertberg-Davis (2009) reported classroom teachers focused differentiation efforts on students who were perceived to need more support rather than high-ability students, believing that only the former group was in need of differentiated instruction.

Institutional Context of Differentiation

Curriculum standards are considered the basis for differentiation (Brighton et al., 2005; Plucker, 2015; Tomlinson, 2000). Standards specify what is to be taught, and differentiation suggests how to teach a standard at a range of levels of depth and complexity to a range of learners. McTighe and Brown (2005) noted standards and differentiation must co-exist to achieve continuous improvement goals, especially in the context of diverse student populations. George (2005) asserted, "It is quite impossible to imagine that real, permanent, productive learning experiences, let alone those simple ones connected to state standards, could happen in any context other than one in which the differentiation of instruction figures prominently" (p. 191).

In contrast, Cuban (2012) argued that the ubiquitous Common Core State Standards (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010) were in tension, if not direct contradiction, with the belief in individualized excellence that motivates differentiated instruction. Although the Common Core State Standards are generally seen as suitable for all learners, according to some scholars (e.g., Ash, 2013;

Plucker, 2015; Swanson et al., 2020), they are not considered sufficient on their own to provide appropriate levels of challenge for all students .

A related element within the institutional context is high-stakes testing. Teachers have expressed feeling limited in the ability to differentiate in the context of high-stakes testing (Moon et al., 2003; Tomlinson et al., 2003). Brown et al. (2006) found teachers expressed a diminished desire to differentiate because anxiety regarding testing and expectations for student performance eclipsed other curricular or instructional directives. This is similar to Brighton et al.'s (2005) finding that teachers did not believe they could differentiate while preparing students for high-stakes tests.

Teachers have also expressed feeling compelled to teach in certain ways such as mimicking testing formats to adequately prepare students for upcoming tests to ensure student success in high-stakes testing environments (Moon et al., 2003). Consequently Mendoza (2006) lamented that the focus on high-stakes tests resulted in nothing more than "teaching to the test" (p. 30). Researchers have documented the pressure on teachers from high-stakes testing to provide identical activities for all rather than differentiating (Manning et al., 2010). Teachers have also expressed feeling limited in their ability to be creative in teaching, including through differentiation, due to high-stakes testing, with one teacher noting their school had done away with differentiated lessons for that reason (Scot et al., 2008). Valli and Buese (2007) ascertained that even when district policy defined the targets of differentiation to include above-grade-level students, the major impetus was to bring students to proficiency for high-stakes testing, and this then became the primary instructional goal. Ultimately, Brimijoin (2005) referred to the dilemma as the "oxymoron of high-stakes testing and differentiation" (p. 260), with pressures of high-stakes testing causing teachers to standardize instruction to cover content.

An Organizational Approach to Curricular and Instructional Change

To answer our research questions about how teachers and principals made sense of a district's differentiation policy and resolved their differentiation practice accordingly, we apply an organizational approach. This perspective allows us to account for the high-stakes environment in which teachers faced numerous pressures at the institutional, district, school, and classroom levels. We argue that, in the high-stakes accountability environment in which educators operate, the demands on teachers and principals are multiple and complex, leading them to search for solutions satisfying those demands in ways such as those we observed around use of time designated for DI and the curricular and instructional application of the construct of differentiation.

Weick (1976) explained an organization is tightly coupled when components are highly dependent and have rational interconnected procedures for accomplishing certain goals, but is an ideal type not regularly observed in nature. Rather, organizations tend to contain components that are responsive to one another but still separate, or intentions that are isolated from actions. Meyer and Rowan (1977) explained that what may appear to be a formal organization could be made up of loosely coupled structural elements that project the image of a rational blueprint. Loosely coupled organizations may eventually deliberately decouple organizational elements. The degree of tight coupling, loose coupling, decoupling, and/or recoupling within an organization depends on the changing environmental and institutional pressures facing the organization.

Decoupling and loose coupling have long been studied as a phenomenon in the field of education, where policy initiatives are not always implemented in the classroom. Bidwell (2001) explained that, through the massive bureaucratization and expansion of the public education

system in the 20th century, the complexity of instruction did not change as much as the structures and operations of school administration. This neo-institutional logic indicates educational organizations are reactive more than rational because district and school leaders may be seen as interested only in appearing legitimate by morphing to keep up with peer organizations rather than truly seeking to be the best and most technically proficient organizations (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). In the late 1970s and 1980s, scholars viewed this decoupling and loose coupling of practice and policy in education as inevitable and assumed that meaningful coupling of institutional policies with classroom practices would lead to conflict and confusion within the organization (Spillane & Burch, 2006).

More recent studies, however, have indicated that neo-institutional theories of decoupling alone cannot account for the relatively tighter coupling of policy and practice observed in contemporary public education. For instance, Coburn (2004) explored how messages about instruction and the environment can influence classroom practice depending on teachers' beliefs and attitudes. Spillane et al. (2011) found that policy messages permeated the technical core of instruction to the extent that school leaders transformed organizational routines and mechanisms to promote standardization and data-based instruction. Some elements of a public education organization can be more or less tightly coupled to policy and may depend on aspects such as content and subject area (Spillane & Burch, 2006). The tightness with which a policy is implemented in a classroom also depends on school actors. Diamond (2007) found that "teachers' interpretation of policy messages shape how they implement reforms in their classrooms and may influence which dimensions of instruction are most directly and meaningfully affected" (p. 287). He argued teachers were more likely to implement policy changes affecting the content and curriculum than their pedagogy or instructional style.

Moreover, how teachers incorporated policy changes into their classrooms was impacted by their own beliefs and attitudes as well as their experiences and interactions with other professionals in their school.

While decoupling, loose, and tight coupling have been well-documented in schools, the *recoupling* of policy to instructional practice is a context-dependent and a richly social process worthy of further investigation. Research into recoupling is nascent and limited (de Bree & Stoopendahl, 2020). Espeland (1998) first explained that recoupling occurs when decoupled policy and practice are brought back into alignment. Egels-Zandén (2014) added that it may occur with increased surveillance of practice, more specific demands, the normalization of compliance over time, more trusting relationships between external and internal actors, and even accidental factors. Hallett (2010) examined recoupling in the context of schools and found that the myths created by decoupling practice from policy, such as accountability, can lead to recoupling. Importantly, Hallett notes that recoupling is not a simple process but rather one that can cause significant micro-level turmoil marked by the collapsing and reconstructing of meanings. We apply Hallett's lens on recoupling to teachers' micro-level explanations of DI time, with the expectation that it can explain how the disciplinary meaning of differentiation as described above was collapsed and reconstructed into DI as implemented in teachers' classrooms.

Methods

Data Collection

We collected data as a part of a larger mixed-methods study of gifted elementary school programming in a large urban public school district of over 150 elementary schools in the United States that had a policy requiring both gifted and general classes to incorporate DI on a regular

basis. In addition, the district policy included provision for specifically designated "DI time" within the instructional day. Inclusion in the larger research study was based on several district gifted program characteristics and district demographics. The district had a unique approach to serving identified gifted students that included full-time gifted classes, part-time gifted math classes, and part-time gifted reading/language arts classes. The student enrollment in the district was racially/ethnically diverse (Black and Latinx students comprising over 80% of the population) and linguistically diverse (over 50 different languages spoken; District website). It was also economically diverse, with over one quarter of the population comprised of children in poverty and nearly 70% eligible for free and reduced-price lunch (District website).

A team of six qualitative researchers conducted 15 site visits to schools in the district from March to December 2018. During these visits, we conducted 87 teacher interviews to complement and provide context for our classroom observations (1–2 observations per teacher) with fourth and fifth grade gifted and general education mathematics and reading/language arts teachers. Teachers were interviewed based on the schedule of the school that would allow for a maximum combination of classroom observation and teacher interviews for those grade levels. Our findings are based on teacher responses to semi-structured interview questions about instructional strategies and adaptations. Many teachers discussed DI time in their responses, though no interview question directly addressed differentiation. The emergence of comments regarding differentiation led us to explore and present findings meant to highlight the teachers' opinions and perceptions of differentiation and DI time as it arose organically and in their own voices. Our approach is based on the tenet that qualitative research takes natural contexts into account and is open to what Korstjens and Moser (2017) refer to as rich and unexpected findings, rather than being limited to what was asked in the original interview protocol. We did not

triangulate with the observational data for this study because observations were not scheduled to overlap with DI time.

Data Coding and Analysis

Findings were derived from inductive and deductive qualitative analyses of interview data. The research team developed a codebook of themes that were both derived from the pre-existing larger study's research questions and theoretical framework and that emerged from our data sources, preliminarily brainstorming these themes from participation in data collection. Major themes included curriculum, instruction, classroom climate, and school context, all of which necessitated child codes to capture subthemes. Six researchers piloted and revised the initial codebook of inductive and deductive codes. A team of four coders also agreed on rules of unitization, developed a plan for when coding uncertainty was encountered, revised the codebook when necessary, and established inter-rater reliability prior to coding the data individually via Dedoose qualitative coding software. The coders' ultimate goal was to establish a coding scheme that fit the three types of data in the larger study's dataset: structured portions of observation forms, semi-structured interview protocols and portions of observation forms, and unstructured fieldnote narratives and portions of observation forms. For an extensive description of our coding methods, see Hemmler et al. (2020).

Differentiation originally emerged deductively as a relevant theme because researchers had expected to see differentiation in the disciplinary sense as an important practice, especially in gifted classrooms. However, the definition and application of the differentiation code was expanded through an inductive process, which allowed coders to capture not only disciplinary instances of differentiation in interview responses, but also practices described as differentiation

but more indicative of different instruction. The expansion of the code allowed us to capture data relevant to how teachers and principals made sense of differentiation and DI time.

Excerpts coded for differentiation were first sorted according to theme to explore the trends among teachers who talked about differentiation but did not employ the disciplinary definition. The themes that emerged pertained to teachers using DI time to provide remediation-oriented activities to students and teachers viewing academic challenge as an afterthought; both themes were impacted by the institutional environments in which our participant teachers taught. These teachers, rather than the types/degrees of differentiation we encountered, became the focus for this paper, and our findings are based on their responses to interview questions about their instructional strategies and adaptations. As such, we were able to uncover the ways they made sense of differentiation, DI time, and the various pressures to accommodate individual student needs while keeping up with high-stakes pressures to meet standards.

DI Policy in the Study Context

In our study district "DI" was a term used across teachers in the sampled schools to mean time spent rotating groups of students based on test score data through instructional centers located around the classroom. In this district, the term had specific meaning about time spent with students moving through centers, usually with one teacher-led center, a handful of small groups and/or individual stations, and students interacting with a computerized program. Principals were required to report on the use of DI time in annual school improvement plans and were responsible for guiding and overseeing the implementation of DI time in their buildings, but they were also expected to supervise teacher adherence to a pacing guide dictating the scope and sequence of classroom curriculum and instruction. This means that in addition to ensuring that differentiation occurred, principals were also responsible for ensuring that teachers were

delivering instruction in accord with the district pacing guide and working toward the outcomes assessed in the state standardized testing program. The imperative for teachers to be adaptive during DI time while simultaneously implementing an otherwise highly-structured pacing guide make this district a compelling case for our study of how teachers made sense of the district's differentiation policy in the high-stakes environment.

Findings

Overall, we found teachers often explained that they used DI time to remediate and review with students whom they perceived to need further instruction on already taught content, while other students deemed not to need remediation were either given standard small-group tasks or individual time on computer programs. Of the 87 teachers who were asked about classroom practices in a semi-structured interview, 68 teachers responded with quotes relevant to differentiation. We believed the greatest contribution to understanding teacher responses to a policy focusing on DI comes from analysis of the responses of the 37 of those 68 who indicated little or no appreciation for DI time as anything more than a district policy or a time for remediation and re-teaching. However, it is important to note that along with the 37 teachers we describe in these findings, there were also 12 teachers with quotes reflecting a better understanding of differentiation accompanied by examples of their implementation of differentiation, and 10 teachers with quotes that were in line with the definition of differentiation but without rich examples from their practice (the remaining 9 teachers out of 68 had quotes coded as differentiation but without sufficient content to further analyze their responses).

As a good example of the underpinning of differentiation, one teacher said, "If somebody is getting it done fast, I'll say, 'Excuse me, can I see that?' If it's done right . . . this child needs to not just have more but may be ready to move on." Teachers in this group could possibly have

been portrayed as counterfactual cases of tight coupling as opposed to misaligned recoupling of policy and practice. However, the pool of such teacher quotes was limited, and examples relied heavily on hypotheticals rather than examples from practice, which did not yield a compelling pattern to offer tight coupling as a finding.

The 37 teachers we feature in this analysis exemplify the misaligned recoupling of policy and practice. Their quotes revealed many students were receiving *different instruction* during DI time, but not necessarily *differentiated instruction* that tailored the content, process, and/or product to their needs. Underlying our analysis is the contrast between our understanding of differentiation and the contention by teachers that working with small groups on remediation or repetition of standardized lessons while other students rotate through identical tasks is appropriate differentiation. Based on the definition of differentiation presented above, teacher use of DI time strategies like computer programs or other pre-packaged materials marketed for advanced or gifted learners does not provide adequate differentiated instruction. We present via teacher quotes the three most salient ways in which the 37 teachers in our study talked about DI time to indicate the recoupling of DI to mean different but not differentiated instruction.

Remediation Orientation

The 37 teachers who had interview quotes coded for differentiation but whose responses did not express a deep understanding or implementation of the disciplinary definition of the practice frequently offered examples of remediating or re-teaching students during DI time. They described assigning students work in small groups through different centers to complete a set of tasks. Although the tasks varied from center to center, these tasks were not differentiated, and all students had to complete the same tasks as they progressed through the centers. The only center that varied depending on the student group was extra time with the teacher, and many teachers

reported using that center to remediate and re-teach as the more advanced students rotated through the other centers. This configuration does not meet the disciplinary standard for differentiation, in which teachers modify the content, process, and/or product based on student readiness, interest, and learning profile. Students who were receiving remediation on existing lessons in this way were also not necessarily given the opportunity to engage with differentiated content, processes, and/or product.

Teachers described their use of DI time as differentiation in a district where grouping was purposefully based on student levels and DI time was highly structured. As one teacher said:

> In the small group instruction, I will pull the students maybe based on the skills that they failed in a particular assessment, and it's broken down for us. Or if I see that even though I went through my whole group instruction that there are four or five that are really just struggling with the whole organization and they have no idea what an essay is like, then I'll go ahead and pull those groups.

Despite the good intentions of these teachers to remediate students on targeted areas as they rotated through different learning centers, this practice of moving students around the room in purposeful groups does not adequately meet the ideals of differentiated instruction. Importantly, many teachers who used DI time for remediation or identical small group work explained that such work was an appropriate use of DI time and that the mere observance of DI time with remediation-minded small group activity was fulfilling the mission of the policy. As one teacher explained:

> We do DI centers where they're rotating around centers doing different things in small groups . . . . There are two centers that are different, and then three that are the same for everybody . . . . The two centers that are different are the teacher-led centers because that

> depends on the group we have. When we have the higher group, then we use something more on grade level, obviously because they are higher, but when we're working with the ESL ones that have issues with English, we teach the same objective but [in] a lot simpler format.

Another teacher described the strict timing pressures on teachers and appeared satisfied that differentiation was accomplished during the DI time when small group rotations were fulfilled:

> I wouldn't say there is a lot of leeway because we have a set routine . . . . We have thirty minutes of intervention in the morning and as soon as intervention is over its thirty minutes of whole book reading and then an hour of DI—differentiated instruction—so we have groups, and we have to make sure that those groups rotate four times that day.

Though teachers accomplished the small-group and individualized mission of DI time, we did not find evidence that the activities reflected truly differentiated instruction. Grouping students for center work during DI and simplifying work for students like English Learners was the focus rather than the adjustment of tasks according to student level of achievement or aptitude.

Challenge as an Afterthought

As teachers prioritized providing remediation during DI time, they regularly dismissed the opportunity to differentiate for students who were ready for a challenge. One teacher described the work done by advanced students during DI time by saying: "When I'm reviewing the primary standards and working with those students that didn't understand the lesson, the students that understood, they either go with a re-teach activity or they continue with [their] own portion from the lesson." This teacher recognized that not all students needed remediation but

offered little in the way of truly differentiated instruction for students who demonstrated they were ready for greater challenge.

Other teachers touched on the ideas of enrichment or challenge for advanced students, but without elaboration or emphasis, which was similar to how they discussed remediation. A common theme was how they spent their time providing for students they perceived in need of remediation and how the work for advanced students was essentially meant to occupy them while the teacher was focused on the small group. For example, one teacher said of a group of students who were struggling with multiplication: "I brought them up front, separated them; it was like a review while the others were doing enrichment. They knew how to do it and they continued on their own."

Even those teachers who reported spending time with groups other than students in need of remediation did not provide evidence of tailoring lessons for advanced students as more than an afterthought. One teacher was unsettled to report offering advanced students only a moderate challenge that did not meet their needs:

> The group I had in front of me was the very low of the lowest in the classroom, so it's different groups. But [the other students] were working on, I hate to say it, the same subject, although theirs was a little bit more advanced; instead of two-digit multiplication they were working on three- and four-digit multiplication.

Again, teachers appeared to have good intentions to maximize the benefit of DI time by remediating in small groups and allowing advanced students to move at their own pace or work on supposedly challenging activities. However, in their practical descriptions of their day-to-day work, teachers acknowledged that challenging students was an afterthought and advanced students were more or less just kept busy. This practice overlooks the diverse needs of learners at

the more advanced end of the spectrum and does not meet the disciplinary definition of differentiation of providing curriculum that is in students' zone of proximal development (ZPD).

Consequences of the Institutional Environment

Thus far, we have been concerned with how teachers reported using DI time to focus on students who needed remediation and, therefore, overlooked those who needed to be challenged. We now turn to exploring why they were able—if not compelled—to make sense of the two competing uses of different and differentiated instruction when explaining how they met the district's requirement to spend time on DI. We argue that the intense institutional focus on high-stakes testing and data-oriented achievement measures may have influenced teachers to use their DI time in the ways described above rather than to differentiate curriculum and instruction for all students, advanced learners included.

In their interviews, teachers described many complex pressures on their instructional time. The district policy delegating time for DI within the strictly mandated highly structured curriculum likely allowed teachers to seek respite from the demanding tempo of the district pacing guide to help students prepare for assessments. For example, one teacher said of the district's expectations of DI time: "They want everything reviewed. The kids who are not doing well on the tests, you have to review with that group." Another teacher also saw DI time as the only opportunity to remediate within the paced curriculum: "Well, the scope [of the pacing guide] does not give us time to re-teach the whole class. . . . During DI, I can pull [students who need more help] and re-teach them, but the pacing guide doesn't give you time to do the same lesson twice." Unfortunately, the chance to break from the expected pace during DI time was primarily interpreted by teachers as a chance to remediate those students who needed assistance

ahead of the next battery of tests, not as a chance to address the needs of advanced learners or differentiate the curriculum and instruction for all students.

A teacher also described the pressures from building leaders to use DI time to re-teach to keep up with the assessment schedule and the district administrators' expectations of achievement progress, despite her efforts to meaningfully differentiate:

> When I do small groups—my principal was asking me about that yesterday because she was like, "I saw different paperwork for different groups." I said, "Well, at the beginning of the year I was using different materials and I was meeting with small groups, only a few would get that work and then the other groups would be doing something else." I said, "However, I realized I needed to change because when I wanted to re-teach the topic, I wanted to show that and have something to show that I'm re-teaching that skill and then assessing it again." I needed something to show that progress because that's what the district looks for, that's what my principal looks for, how am I tackling those students that are not getting it.

Other teachers also suggested that principals were setting the priorities for test preparation and remediation during DI time, including one who reported, "Our administrators want us to focus on phonics and vocabulary with those low [students] . . . . With everybody else we focus on whatever their skill is that week." Given principals' focus on improving the achievement of the lowest performing students and the action by district administrators to carve out time for differentiation, the environment created by high-stakes testing may have made teachers believe they had to prioritize students in danger of under-performing above all else. They recoupled the meaning of DI time to the practice of different but not differentiated instruction to concentrate

their face-to-face time on students whom they perceived to need extra support to ensure success on the state tests.

Discussion

The three themes that emerged from our interviews with teachers in a district implementing a differentiated instruction policy indicate that teachers struggled to do more than offer different—not differentiated—curriculum and instruction to their students. Teachers focused on remediation and considered high academic challenges as an afterthought, and many implied the high-stakes and fast-paced environment contributed to their difficulty with meeting the requirements of DI time in more than name only or in more than a focus on remediation. We argue that the high-stakes accountability environment needs to be further explored as the institutional pressure shaping the recoupling of policy to practice on issues such as differentiation.

Impacts of Institutional Pressures on Organizational Actors

The teachers working to incorporate DI into their classroom time were not following the paths predicted by neo-institutional theories of organizational behavior. That is, teachers were not merely scraping by incoherently pairing solutions to problems as if fished out of the garbage can (Cohen et al., 1972), nor were principals buffering instructional practices to prevent further inspection in a loosely or de-coupled environment (Meyer & Rowan, 1977). Rather, a plurality of teachers in our study expressed that they were dutifully implementing the policy by allocating time for small groups and remediation during DI. They believed they were aligning the classroom, school, and policy environments, though we can see that in actuality what they were describing was a *re*coupling of their practice to policy with a reconstructed meaning of differentiation. That is, instead of coupling the demand for differentiation with a practice of

differentiated instruction, it was coupled to a practice of different instruction. Different instruction during DI time was close enough to differentiated instruction in the minds of these stakeholders. Recoupling re-centers teachers as actors with power and agency in defining and executing policies in their classroom practice, albeit in a way still limited by the institutional circumstances of high-stakes achievement and standardized testing.

From an organizational standpoint, the recoupling phenomenon we documented in our analysis of teacher interviews is entirely rational—if differentiation (or any other instructional practice) is necessary but too difficult to accomplish, a solution is to collapse and reconstruct the meaning of differentiation to something more manageable and see if that can be accomplished instead. This seems particularly likely if the substitute behavior aligns with other valued goal espoused by the district and school level administrators—in this case improving the performance of students such as gifted English learners, who may not perform to their potential on high stakes testing without additional supports through differentiation rather than simpler content. If successfully recoupled with the new definition, all parties can appear to be in alignment and yet still not be achieving the original goal. We expect the case of recoupling in our data to have broader implications for the relationship between policy and practice and how they may be recoupled in ways that do not necessarily prioritize student learning and outcomes in the era of high-stakes accountability. And while our data and findings do not allow us to draw conclusions about whether and how a policy like the focal district's DI time expectations can make education more equitable, we anticipate that commitment to aligned implementation of a well-designed policy can benefit the many diverse learners who need remediation or advancement, and everything in between.

Differentiation

We believe our case also warrants further discussion of the specific issue of differentiation. Although federal policy reflected in the Every Student Succeeds Act (2015) included a reference to differentiated instruction to address the academic needs of students in diverse classrooms, the application of the practice in classrooms was often left to educators' interpretations. When the recoupling of policy and practice occurs, there is no informed nor consistent application of the policy in the classroom. Our findings revealed that different was a more appropriate description of teacher practices than differentiation in the disciplinary sense. Essentially, teachers did not consistently adjust the content, process, or product for all students despite the district's policy to do so and allocation of time when that process could be implemented despite a strict pacing guide for the rest of the instructional day.

Our findings serve as evidence that policies related to DI can exist; however, their accurate enactment requires careful attention to "what," "how," "why," and "when." "What" and "when" refer to DI with specific content and time requirements. "Why" can refer to the goal of improving state test scores, mainly for students who had not achieved specific benchmarks. However, clear evidence in our study of "why" DI should indeed apply to meeting the diverse needs of all students, including those classified as advanced, was limited. Additionally, reasons behind teachers' decision-making about "how" to implement DI were not known. Teachers chose to work with students who were not performing at grade level and assumed advanced students would make it on their own (Farkas & Duffet, 2008). In our study, the modifications of content, process, and/or product were not aligned with students' readiness for learning and mastery of advanced grade level content, concepts, and skills.

The core strategies associated with differentiated instruction were not described consistently during the teachers' interviews. The words "differentiated instruction" associated

with the policy were well-known educational terms. What was missing was a clear understanding that DI should be a proactive and deliberate approach to assessing students' learning needs, choosing or creating alternatives to meeting the academic goals, and evaluating student progress.

Implications

We see two major implications to our findings that the teachers in our study reported using DI time to remediate students in need instead of to challenge students or address the varied needs of all students more broadly. The first acknowledges the reality, as borne out in our data, that these teachers believed they had no other option in the climate of high-stakes testing than to focus on the students who were in danger of not performing satisfactorily on said tests. There must be a concrete acknowledgement by policymakers of the myriad pressures teachers face in the era of accountability and how those pressures can make it difficult for teachers to implement policies. Teachers' concerns with standardized testing have been documented thoroughly (e.g., Booher-Jennings, 2005; Harris, 2011)—namely, that they can cause teachers to feel pressured into focusing on "bringing up the bottom rather than top-end learning" (Brown et al., 2006, p. 17). These pressures may contribute to an atmosphere of turmoil or mixed-messaging that can cause misalignment in the recoupling process (Hallett, 2010) and, therefore, the substitution of practices that are similar to but not exactly what was intended by the policies. Once policymakers and district personnel approach these pressures actively, by considering them in their policy creation and by providing guidelines to help with policy implementation, a greater understanding of how "practical realities intrude" with the goal of differentiation (Cuban, 2012, para. 22), and how the turmoil can be mitigated in research and practice, can be reached—to the benefit of teachers and students alike.

The second implication of our findings considers the possibility that the teachers in our study also did not differentiate either because they did not believe it was necessary or were not confident in their abilities to do so. We believe that professional development can address both of these issues. Prior literature has documented why professional development opportunities that inform teachers not only how to properly differentiate in their classrooms, but also why doing so is important for students, must be provided by school districts and individual schools, and we draw on the findings of our study to echo this call. Teachers' common beliefs regarding differentiation have been recorded as the following: it is "good in theory . . . but unrealistic" given the current educational climate (Brighton et al., 2005, p. 314); it is nothing but more work for the teacher (Manning et al., 2010); and it is simply not necessary for advanced or gifted students because they have the ability to learn independently with proper resources (Bain et al., 2007; Laine & Tirri, 2016; VanTassel-Baska & Stambaugh, 2005). As these can be deeply held beliefs developed by teachers over long periods of time, it will likely take sustained attention, effort, and support to unseat them (Brighton et al., 2005). This is not to mention that a change in beliefs about a practice does not automatically unlock the ability to properly engage in that practice in the classroom. Professional development can provide teachers with an opportunity to unpack and grow their beliefs about differentiation, increase their understanding of differentiation as a pedagogical approach, and foster the ability to apply what they have developed in their praxis (Chval & Davis, 2008; Peters & Jolly, 2018; Plucker, 2015; Tomlinson, 1995; VanTassel-Baska et al., 2008). We believe professional development and proper supports for teachers are critical for any policy to be aligned and tightly recoupled when put into practice.

Limitations and Future Research

While the data analyzed for this study provided insights into the processing by teachers of the demands of differentiated instruction, the analysis is limited by several factors. First, the collection of data in the public school environment delimited our findings. Even though we would have liked to observe in schools and interview individuals of our choosing, it was not possible. In fact, we did not have control over the schools nor teachers identified for the study. The district administrators at the central office levels identified schools and offered us the opportunity to study schools with varying models of gifted services for students in schools located within neighborhoods designated as high poverty, but then the principal in each school was given the opportunity to allow or not allow our visits. Hence, the schools were "volunteers." Further, teachers within a school were offered the option to participate in our study, which they could accept or refuse. Thus, our findings must be considered appropriately within the study context. An extension of this study could employ purposeful sampling to facilitate a deeper understanding of how teachers' beliefs affected their practices as regarded differentiation.

Second, because the schools were located in neighborhoods designated as high poverty, administration and teachers may have had more intense concerns about meeting academic progress standards, and hence, their responses may be more reflective of stress in preparing for standardized tests and not differentiating lessons. We did not have data from schools located in neighborhoods classified as low poverty to use as a basis for comparisons, but we contend a comparison as meaningful future inquiry.

Finally, as stated, we analyzed interview data only for this study. Because of scheduling issues, we were unable to connect observational data reflecting the degree of actual student and teacher activity during DI time with the teachers' interview reports. We were also dependent on teacher reports of factors in the environment that may have supported or thwarted differentiation

of curriculum and instruction. This limitation confirms the need for further research that incorporates targeted observational data particularly if the effect of professional development on successful differentiation is to be addressed.

References

Anagnostopoulos, D., & Rutledge, S. (2007). Making sense of school sanctioning policies in urban high schools: Charting the depth and drift of school and classroom change. *Teachers College Record*, *109*(5), 1261–1302. https://www.tcrecord.org/books/exec.asp?ContentID=12895

Ash, K. (2013). Common core needs tailoring for gifted learners, advocates say. *Education Week, 33*(10), S32–S34. https://www.edweek.org/ew/articles/2013/10/30/10cc-gifted.h33.html

Au, W. (2007). High-stakes testing and curricular control: A qualitative metasynthesis. *Educational Researcher, 36*(5), 258–267. https://doi.org/10.3102/0013189X07306523

Bain, S. K., Bliss, S. L., Choate, S. M., & Brown, K. S. (2007). Serving children who are gifted: Perceptions of undergraduates planning to become teachers. *Journal for the Education of the Gifted, 30*(4)*,* 450–478. https://doi.org/10.4219/jeg-2007-506

Barrett-Tatum, J., & Ashworth, K. (2021). Moving educational policy to educators' lived reality: One state's trickle-down, bottom-up pathway to literacy intervention reform. *Journal of Educational Change*, *22*(1), 1–24. https://doi.org/10.1007/s10833-020-09392-1

Bidwell, C. E. (2001). Analyzing schools as organizations: Long-term permanence and short-term change. *Sociology of Education*, *74*, 100–114. https://pdfs.semanticscholar.org/6256/f76a070e31ac06ff1a0b821d6b03e2653b65.pdf

Birnie, B. F. (2015). Making the case for differentiation. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *88*(2), 62–65. https://doi.org/10.1080/00098655.2014.998601

Booher-Jennings, J. (2005). Below the bubble: "Educational triage" and the Texas Accountability System. *American Educational Research Journal, 42*(2), 231–268. https://doi.org/10.3102/00028312042002231

Brimijoin, K. (2005). Differentiation and high-stakes testing: An oxymoron? *Theory Into Practice*, *44*(3), 254–261. https://doi.org/10.1207/s15430421tip4403_10

Brighton, C. M., Hertberg, H. L., Moon, T. R., Tomlinson, C. A., & Callahan, C. M. (2005). The feasibility of high-end learning in a diverse middle school. University of Connecticut, The National Research Center on the Gifted and Talented. https://nrcgt.uconn.edu/research-based_resources/brighert/

Brown, E. F., & Abernethy, S. H. (2009). Policy implications at the state and district level with RtI for gifted students. *Gifted Child Today*, *32*(3), 52–57. https://doi.org/10.1177/107621750903200311

Brown, E. F., Avery, L., Van Tassel-Baska, J., Worley, B. B., & Stambaugh, T. (2006). A five-state analysis of gifted education policies. *Roeper Review*, *29*(1), 11–23. https://doi.org/10.1080/02783190609554379

Callahan, C., Moon, T., Oh, S., Azano, A., & Hailey, E. (2015). What works in gifted education: Documenting the effects of an integrated curricular/instructional model for gifted students. *American Educational Research Journal*, *52*(1), 137–167. https://doi.org/10.3102/0002831214549448

Chval, K., B., & Davis, J. A. (2008/2009). The gifted student. *Mathematics Teaching in the Middle School, 14*(5), 267–274. https://www.jstor.org/stable/41183133

Coburn, C. E. (2004). Beyond decoupling: Rethinking the relationship between the institutional environment and the classroom. *Sociology of Education*, *77*(3), 211–244. https://doi.org/10.1177/003804070407700302

Cohen, M. D., March, J. G., & Olsen, J. P. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly*, *17*(1), 1–25. http://www.jstor.org/stable/2392088

Cross, J. R. (2013). Gifted education as a vehicle for enhancing social equality. *Roeper Review, 35*(2), 115–123. https://doi.org/10.1080/02783193.2013.766962

Cuban, L. (2012). Standards vs. customization: Finding the balance. *Educational Leadership*, *69*(5), 10–15. http://www.ascd.org/publications/educational-leadership/feb12/vol69/num05/Standards-vs.-Customization@-Finding-the-Balance.aspx

de Bree, M. & Stoopendaal, A. (2020). De- and recoupling and public regulation. *Organization Studies*, *41*(5), 599–620. https://doi.org/10.1177/0170840618800115

Deunk, M. I., Smale-Jacobse, A. E., de Boer, H., Doolaard, S., & Bosker, R. J. (2018). Effective differentiation practices: A systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education. *Educational Research Review*, *24*, 31–54. https://doi.org/10.1016/j.edurev.2018.02.002

Diamond, J. B. (2007). Where the rubber meets the road: Rethinking the connection between high-stakes testing policy and classroom instruction. *Sociology of Education*, *80*(4), 285–313. http://www.jstor.org/stable/20452714

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48*(2), 147–160. https:// www.jstor.org/stable/2095101.

Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted*, *37*(2), 111–127. https://doi.org/10.1177/0162353214529042

Egels-Zandén, N. (2014). Revisiting supplier compliance with MNC codes of conduct: Recoupling policy and practice at Chinese toy suppliers. *Journal of Business Ethics*, *119*(1), 59–75. https://ideas.repec.org/a/kap/jbuset/v119y2014i1p59-75.html

Espeland, W. N. (1998). *The struggle for water: Politics, rationality, and identity in the American Southwest*. University of Chicago Press.

Every Student Succeeds Act, 20 U.S.C. § 6641 (2015). https://www2.ed.gov/documents/essa-act-of-1965.pdf

Farkas, S., & Duffet, A. (2008). Findings from a national teacher survey: Part 2. In *High-achieving students in the era of NCLB* (pp. 49–72). Thomas B. Fordham Institute. http://www.edexcellence.net/publications/high-achieving-students-in.html

Ford, T. G., Lavigne, A. L., Fiegener, A. M., & Si, S. (2020). Understanding district support for leader development and success in the accountability era: A review of the literature using social-cognitive theories of motivation. *Review of Educational Research*, *90*(2), 264–307. https://doi.org/10.3102/0034654319899723

Gavin, M. K., Casa, T. M., Adelson, J. L., Carroll, S. R., & Sheffield, L. J. (2009). The impact of advanced curriculum on the achievement of mathematically promising elementary students. *Gifted Child Quarterly, 53*(3)*,* 188–202. https://doi.org/10.1177/0016986209334964

Gavin, M. K., Casa, T. M., Adelson, J. L., Carroll, S. R., & Sheffield, L. J., & Spinelli, A. M. (2007). Project M^3: Mentoring mathematical minds–A research-based curriculum for

talented elementary students. *Journal of Advanced Academics, 18*(4)*,* 566–585. https://doi.org/10.4219/jaa-2007-552

George, P. S. (2005). A rationale for differentiating instruction in the regular classroom. *Theory Into Practice*, *44*(3), 185–193. https://doi.org/10.1207/s15430421tip4403_2

Gubbins, E. J., McCoach, D. B., Foreman, J. L., Gilson, C. M., Bruce-Davis, M. N., Rubenstein, L., Savino, J., Rambo, K., & Waterman, C. (2013). What works in gifted education mathematics study: Impact of pre-differentiated and enriched curricula on general education teachers and their students. University of Connecticut, The National Research Center on the Gifted and Talented. https://nrcgt.uconn.edu/wp-content/uploads/sites/953/2015/09/rm13242.pdf

Hallett, T. (2010). The myth incarnate: Recoupling processes, turmoil, and inhabited institutions in an urban elementary school. *American Sociological Review*, *75*(1), 52–74. https://doi.org/10.1177/0003122409357044

Harris, D. M. (2011). Curriculum differentiation and comprehensive school reform: Challenges in providing educational opportunity. *Educational Policy*, *25*(5), 844–884. https://doi.org/10.1177/0895904810386600

Hawkins, V. J. (2009). Barriers to implementing differentiation: Lack of confidence, efficacy and perseverance. *The New England Reading Association Journal*, *44*(2), 11–16. https://webcapp.ccsu.edu/u/faculty/TurnerJ/NERA-V44-N2-2009.pdf#page=89

Hemmler, V. L., Kenney, A. W., Dulong Langley, S., Callahan, C. M., Gubbins, E. J., & Holder, S. (2020). Beyond a coefficient: An interactive process for achieving inter-rater consistency in qualitative coding. *Qualitative Research*, *22*(2), 194–219. https://doi.org/10.1177/1468794120976072

Hertberg-Davis, H. L. (2009). Myth 7: Differentiation in the regular classroom is equivalent to gifted programs and is sufficient: Classroom teachers have the time, the skill, and the will to differentiate adequately. *Gifted Child Quarterly*, *53*(4), 251–253. https://doi.org/10.1177/0016986209346927

Kaplan, S. N. (2005). Layering differentiated curriculum for the gifted and talented. In F. Karnes & S. Bean (Eds.), *Methods and materials for teaching gifted students* (2nd ed., pp. 107–132). Prufrock Press.

Kaplan, S. N. (2018). *Dr. Sandra Kaplan: Part 1–Effective differentiation*. https://casenexvl.ioeducation.com/critical-perspectives/sandra-kaplan/

Korstjens, I., & Moser, A. (2017). Series: Practical guidance to qualitative research. Part 2: Context, research questions and designs. *European Journal of General Practice, 2*3(1), 274–279. https://doi.org/10.1080/13814788.2017.1375090

Laine, S., & Tirri, K. (2016). How Finnish elementary school teachers meet the needs of their gifted students. *High Ability Studies, 27*(2), 149–164. https://doi.org/10.1080/13598139.2015.1108185

Little, C. A., McCoach, D. B., & Reis, S. M. (2014). Effects of differentiated reading instruction on student achievement in middle school. *Journal of Advanced Academics, 25*(4), 384–402. https://doi.org/10.1177/1932202X14549250

Manning, S., Stanford, B., & Reeves, S. (2010). Valuing the advanced learner: Differentiating up. *The Clearing House, 83*(4), 145–149. https://doi.org/10.1080/00098651003774851

McCoach, D. B., Gubbins, E. J., Foreman, J., Rubenstein, L. D., & Rambo-Hernandez, K. E. (2014). Evaluating the efficacy of using pre-differentiated and enriched mathematics

curricula for grade 3 students. *Gifted Child Quarterly*, *58*(4), 272–286. https://doi.org/10.1177/0016986214547631

McTighe, J., & Brown, J. (2005). Differentiated instruction and educational standards: Is détente possible? *Theory into Practice, 44*(3), 234–244. https://doi.org/10.1207/s15430421tip4403_8

Mendoza, C. (2006). Inside today's classrooms: Teacher voices on No Child Left Behind and the education of children. *Roeper Review, 29*(1), 28–31. https://doi.org/10.1080/02783190609554381

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*(2), 340–363. https://www.jstor.org/stable/2778293

Moon, T. R., Brighton, C. M., & Callahan, C. M. (2003). State standardized testing programs: Friend or foe of gifted education? *Roeper Review*, *25*(2), 49–60. https://doi.org/10.1080/02783190309554199

National Governors Association Center for Best Practices, Council of Chief State School Officers. (2010). *Common core state standards.* National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C.

Parsons, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., Pierczynski, M., & Allen, M. (2018). Teachers' instructional adaptations: A research synthesis. *Review of Educational Research*, *88*(2), 205–242. https://doi.org/10.3102/0034654317743198

Peters, S. J., & Jolly, J. L. (2018). The influence of professional development in gifted education on the frequency of instructional practices. *The Australian Educational Researcher*, *45*(4), 473–491. https://doi.org/10.1007/s13384-018-0260-4

Pierce, R. L., Cassady, J. C., Adams, C. M., Speirs Neumeister, K. L., Dixon, F. A., & Cross, T. L. (2011). The effects of clustering and curriculum on the development of gifted learners' math achievement. *Journal for the Education of the Gifted, 34*(4), 569–594. https://doi.org/10.1177/016235321103400403

Plucker, J. A. (2015). *Common core and America's high-achieving students*. Thomas B. Fordham Institute. https://files.eric.ed.gov/fulltext/ED559992.pdf

Plucker, J. A., & Callahan, C. M. (2020). The evidence base for advanced learning programs. *Phi Delta Kappan*, *102*(4), 14–21. https://doi.org/10.1177/0031721720978056

Reis, S. M., McCoach, D. B., Little, C. A., Muller, L. M., & Kaniskan, R. B. (2011). The effects of differentiated instruction and enrichment pedagogy on reading achievement in five elementary schools. *American Educational Research Journal*, *48*(2), 462–501. https://doi.org/10.3102/0002831210382891

Renzulli, J. S. (1988). The Multiple Menu Model for developing differentiated curriculum for the gifted and talented. *Gifted Child Quarterly*, *32*(3), 298–309. https://doi.org/10.1177/001698628803200302

Rubenstein, L. D., Gilson, C. M., Bruce-Davis, M. N., & Gubbins, E. J. (2015). Teachers' reactions to pre-differentiated and enriched mathematics curricula. *Journal for the Education of the Gifted*, *38*(2), 141–168. https://doi.org/10.1177/0162353215578280

Scot, T. P., Callahan, C. M., & Urquhart, J. (2008). Paint-by-number teachers and cookie-cutter students: The unintended effects of high-stakes testing on the education of gifted students. *Roeper Review*, *31*(1), 40–52. https://doi.org/10.1080/02783190802527364

Smale-Jacobse, A. E., Meijer, A., Helms-Lorenz, M., & Maulana, R. (2019). Differentiated instruction in secondary education: A systematic review of research evidence. *Frontiers in Psychology, 10*(2366), 1–23. https://doi.org/10.3389/fpsyg.2019.02366

Spillane, J. P., & Burch, P. (2006). The institutional environment and instructional practice: Changing patterns of guidance and control in public education. In H. D. Meyer & B. Rowan (Eds.), *The new institutionalism in education* (pp. 87–102). SUNY Press.

Spillane, J. P., Hopkins, M., & Sweet, T. M. (2018). School district educational infrastructure and change at scale: Teacher peer interactions and their beliefs about mathematics instruction. *American Educational Research Journal*, *55*(3), 532–571. https://doi.org/10.3102/0002831217743928

Spillane, J. P., Parise, L. M., & Sherer, J. Z. (2011). Organizational routines as coupling mechanisms: Policy, school administration, and the technical core. *American Educational Research Journal*, *48*(3), 586–619. https://doi.org/10.3102/0002831210385102

Swanson, J. A., & Ficarra, L. R., & Chapin, D. (2020). Strategies to strengthen differentiation within the common core era: Crawling on the expertise from those in the field. *Preventing School Failure: Alternative Education for Children and Youth, 64*(2), 116–127. https://doi.org/10.1080/1045988X.2019.1683802

Tomlinson, C. A. (1995). Deciding to differentiate instruction in middle school: One school's journey. *Gifted Child Quarterly*, *39*(2), 77–87. https://doi.org/10.1177/001698629503900204

Tomlinson, C. A. (2000). Reconcilable differences? Standards-based teaching and differentiation. *Educational Leadership*, *58*(1), 6–11. http://www.ascd.org/publications/educational_leadership/sept00/vol58/num01/Reconcilable_Differences%C2%A2_Standards-Based_Teaching_and_Differentiation.aspx

Tomlinson, C. A. (2009). *The differentiated classroom: Responding to the needs of all learners.* ASCD.

Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). ASCD.

Tomlinson, C. A., & Allen, S. D. (2000). *Leadership for differentiating schools & classrooms.* ASCD.

Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K., Conover, L. A., Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, *27*(2/3), 119–145. https://doi.org/10.1177/016235320302700203

Valli, L., & Buese, D. (2007). The changing roles of teachers in an era of high-stakes accountability. *American Educational Research Journal*, *44*(3), 519–558. https://doi.org/10.3102/0002831207306859

VanTassel-Baska, J. (2005). Gifted programs and services: What are the nonnegotiables? *Theory Into Practice*, *44*(2), 90–97. https://doi.org/10.1207/s15430421tip4402_3

VanTassel-Baska, J. (2006). A content analysis of evaluation findings across 20 gifted programs: A clarion call for enhanced gifted program development. *Gifted Child Quarterly*, *50*(3), 199–215. https://doi.org/10.1177/001698620605000302

VanTassel-Baska, J., & Stambaugh, T. (2005). Challenges and possibilities for serving gifted learners in the regular classroom. *Theory Into Practice, 44*(3), 211–217. https://doi.org/10.1207/s15430421tip4403_5

VanTassel-Baska, J., Feng, A., Brown, E., Bracken, B., Stambaugh, T., French, H., McGowan, S., Worley, B., Quek, C., & Bai, W. (2008). A study of differentiated instructional change over 3 years. *Gifted Child Quarterly, 52*(4), 297–213. https://doi.org/10.1177/0016986208321809

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (A. R. Luria, M. Lopez-Morillas & M. Cole [with J. V. Wertsch], Trans.). Harvard University Press. (Original work [ca. 1930-1934])

Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, *21*(1)*,* 1–19. https://doi.org/10.2307/2391875

Woulfin, S. L. (2015). Catalysts of change: An examination of coaches' leadership practices in framing a reading reform (2015). *Journal of School Leadership*, *25*(3), 526–557. https://doi.org/10.1177/105268461502500309