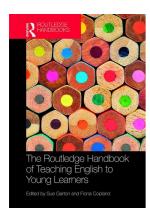
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# The Routledge Handbook of Teaching English to Young Learners

Sue Garton, Fiona Copland

# Differentiated instruction for young English learners

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Amanda L. Sullivan, Mollie R. Weeks

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# Differentiated instruction for young English learners

Amanda L. Sullivan and Mollie R. Weeks

#### Introduction

Diversity is a cornerstone of the modern classroom. Children vary not only in their funds of knowledge and academic skills, but on a range of intersecting cultural dimensions such as ethnicity, nationality, language, socioeconomic status, gender and religion. In many schools and classrooms, increasing diversity is largely attributable to rising enrolments of migrant children, including immigrants, refugees and asylees, who may enter school with a myriad of linguistic and educational experiences that create a range of readiness for planned curriculum and instruction (Sullivan et al. 2016). Yet, to the potential detriment of students, many educators 'still harbor the myth of "homogeneity by virtue of chronological age" where teachers instruct all students uniformly regardless their diverse needs (Tomlinson et al. 2003, p. 119). This attitude can be especially problematic when the students comprising a classroom come from diverse cultural and linguistic backgrounds.

Educators can implement differentiated instruction (DI) to respond systematically to students' varied learning needs and language skills. DI is an instructional orientation wherein 'teachers proactively modify curricula, teaching methods, resources, learning activities, and student products to address the diverse needs of individual students and small groups of students to maximise the learning opportunity for each student in a classroom' (Tomlinson et al. 2003, p. 121). In short, DI is a framework for tailoring curriculum and instruction to students' readiness and interests so that students acquire desired knowledge and skills and avoid disengagement that often follows instruction misaligned to students' present knowledge and skills (Tomlinson et al. 2003). This chapter provides an overview of DI and its component practices that can be applied in order to achieve instructional tailoring to unique student needs, with an emphasis on its application with young English learners (ELs).

# Historical perspectives

As a general concept, DI has been around for many years and discussed in a variety of terms (e.g., differentiated learning, tailoring, individualization, adapting to individual differences, universal design). As a unified approach, however, development of DI has largely

taken place in the last twenty years. In this section, we describe the historical origins of DI, including its theoretical roots, as a basis for the practices to be discussed in later sections.

Teachers in one-room schoolhouses and multigrade classrooms had to differentiate instruction to ensure students of varying developmental stages and skill levels progressed (Washburn 1953). As many school systems moved to graded classrooms of like-aged children, attention to differentiation waned. Nonetheless, as student diversity grows and policies encourage or mandate inclusion of students from diverse cultural, linguistic, and ability groups, DI has been refined as an increasingly valuable means of supporting students' learning. Indeed, since few classrooms are characterised by truly homogenous learner needs, all educators should engage in some degree of differentiation to promote learning. As a unified concept, contemporary conceptualization of DI gained traction from Tomlinson's work in the late 1990s and early 2000s and centres around adaptation of the instructional strategies, curriculum, learning environment and student products in response to students' diverse learning needs.

The DI approach described herein is informed by multiple developmental and learning theories and constructs. Of particular relevance is Lev Vygotsky's zone of proximal development (ZPD), 'a point of required mastery where a child cannot successfully function alone, but can succeed with scaffolding or support' (Tomlinson et al. 2003, p. 126). When instruction targets students' ZPDs with appropriate teacher support, students build academic skills and develop greater independence. One child's ZPD is likely unique from another's, so scaffolding allows for tailoring of support to meet children's varied needs. Consistent with Vygotsky's ZPD, research indicates children learn best when given tasks that are slightly beyond their skill level but not so challenging as to cause failure (Case-Smith and Holland 2009). This means teachers should identify the task features wherein a child is able to succeed while building additional language or academic skills and offer necessary supports to facilitate mastery.

In addition, applied behaviour analysis (ABA), an approach to supporting development of meaningful behaviours by altering the environment, provides a foundation for research-based practices within DI. In ABA, the provider considers how the environment influences behaviour to identify how environmental factors can be modified to promote desired outcomes (Ardoin et al. 2016). Thus, from an ABA approach, we do not blame students for educational difficulties but instead consider ways in which the learning environment can impede or facilitate students' progress and adjust instruction, materials or other dimensions of the classroom environment to achieve desired outcomes (Ardoin et al. 2016). When engaging young ELs, examining environmental causes for difficulties helps underscore the many contextual factors influencing language acquisition, especially second language acquisition, and related academic development of ELs (e.g., inadequate vocabulary instruction; Martinez et al. 2014). Adjusting instruction accordingly increases the likelihood of student success by implementing increasingly individualised or intensive practices to reinforce linguistic development.

DI is also informed by motivation theory. While external factors have a significant impact on language acquisition and academic development, it is also prudent to examine student motivation throughout the process of learning. Self-determination theory (SDT) explores the relationship between various types of motivation and how they relate to behaviour. Behaviour that is extrinsically motivated is directed by certain tangible outcomes (i.e., earning a specific grade on a test, developing foundational knowledge for a future career, avoiding punishment/sanctions). Intrinsic motivation, on the other hand, is often related to curiosity or other internal drivers. Appropriately supporting student learning and student

competence and autonomy creates educational environments that spark curiosity and capitalise on intrinsic motivation. One way to support autonomy is by allowing choice and self-direction during learning (Ryan and Deci 2000). DI can promote intrinsic motivation by encouraging student interest and self-competence (Tomlinson et al. 2003).

# Critical issues and topics

Because DI is an orientation or framework for instruction, there are several necessary elements and related practices to achieve its goals. In this section, we describe the basic elements of DI and core practices in assessment since effective assessment is necessary to plan and evaluate instructional adaptations that occur within DI. DI scholarship specific to TESOL and young ELs is limited, so we have drawn primarily in this chapter on studies conducted with DI in English-only general and special education settings with largely early elementary-aged students. Further, this literature has largely emerged from scholars and research studies based in the United States. We address how DI may be applied with young ELs, recognizing that its application may have to be adapted in non-US contexts.

#### Basic elements of DI

Proactive instructional design responsive to learner differences is the basis of effective DI. Teachers taking this approach design curricula with learner diversity in mind as opposed to only adapting whole-class instruction as challenges arise. Instruction can be differentiated by focusing on curricula, instructional strategies, classroom environment or materials and student products, or the reciprocal relationships among them. Figure 8.1 presents several guiding questions that can inform DI planning with young ELs.

DI is planned relative to students' readiness for instruction given that not all students will benefit from a one-size-fits-all approach to curriculum and instruction. Among young ELs, readiness may be determined by a variety of factors: language proficiency, educational experience, prior funds of knowledge, academic skills, abilities and special needs, and others. Finding the right starting point for instruction links directly back to the importance of the ZPD since instruction should be targeted just beyond a child's current level of language skills and content mastery, and provide appropriate scaffolding. Educators must gauge students' individual readiness well enough to determine the best entry point for additional instruction. Through screening, progress monitoring and diagnostic assessments (discussed in detail below), school personnel can determine which students need additional assistance to progress and how best to adapt relevant dimensions of the instructional environment by understanding the nature of language and skill deficits, planning changes to core curriculum and matching students to appropriate targeted supports (Hosp and Ardoin 2008).

DI often relies on flexible grouping and pacing. In recognizing the variability in students' language skills and performance, teachers make allowances for variable response times and completion rates. Groupings can be made to provide DI to breakout groups of students with similar needs. Alternatively, heterogeneous groups can be used to capitalise on the social nature of learning via implementation of research-based paired or group learning strategies so that peers provide scaffolding. Another core feature of DI is using students' interests and experience to enhance learning. Teachers should consider students' interests and background knowledge as a means to increase not only students' persistence and motivation, but achievement and productivity as well (Tomlinson et al. 2003).

#### **Instructional Strategies**

How do I structure instructional time within the classroom (lecture, choral responding, popcorn reading)?

Can I present material through different means (audio, visual, varying text sizes, etc.)?

Do some students respond differently to different

types of instruction?

Are there ways to shape instruction to meet

individual student language needs?

Can I utilize peers to assist with
language instruction and socialization?

# **Learning Environment**

Is my classroom conducive to learning? Could I minimize clutter to help increase student focus? Do certain students require special environments to maximize learning and performance (i.e., quiet testing areas)?

How do I create a welcoming environment for all students?

Can I find ways to acknowledge and celebrate the diversity of cultures within my classroom?

Are students grouped appropriately for small group instruction?

#### **Guiding Questions for DI**

#### Curriculum

Does my classroom's core curriculum support all learners?

Are any students at risk for language difficulties?
Can I vary instructional materials accordingly?
Can I find ways to vary content by student interest?

Can I alter the curriculum to focus on areas in need of additional instruction?

#### **Student Products**

How do I assess students' language and content mastery?

Do I offer options for students to showcase what they know and can do in a variety of formats? Would a variety of different assessments (exams, papers, projects, etc.) increase depth of learning and engagement with course material?

Can I capitalize on the diverse linguistic strengths within my classroom when creating assignments and assessments?

Are there opportunities for students to work in groups?

Are grading rubrics varied by skill level?

Figure 8.1 Questions to guide DI, derived from Skinner et al. 1996; Martinez et al. 2014; Delbridge and Helman 2016; Grinder 1993; Watts-Taffe et al. 2012; Ernest et al. 2011

#### Assessment to inform DI

The goal of assessment is to determine what students need to learn and how to best teach it (Hosp and Ardoin 2008). In order to differentiate instruction efficiently and effectively and determine the value of adaptations, teachers should engage in data-based decision making (DBDM). Put simply, DBDM is a set of systematic procedures for collecting data on student performance and modifying instruction based on those data (Carta et al. 2016). Educators act as problem analysts, identifying potential causes for students' problems and strategizing methods for solving the problem (Christ and Arañas 2014). When discrepancies exist between an expected level of performance and an observed level of performance, practitioners work to uncover the variables that both cause and maintain particular problematic behaviours or performance challenges.

The basic principles of DBDM are derived from the scientific method. To change student outcomes and performance (dependent variables) teachers implement instructional strategies or interventions (independent variables), based on hypotheses about students' learning needs, and collect data before and during implementation to determine the effects of changes (Deno 2016). Any change made within DI can be considered a testable hypothesis about the potential effect on student learning. From there, school personnel are able to engage in the

ongoing process of assessment, modification and hypothesis testing until student outcomes reflect desired results.

Accordingly, a common first step in DBDM is school- or classwide screening, a process of briefly assessing all students to determine each individual student's performance in comparison to peers or language or performance standards. The data obtained from this process can be used to evaluate instruction and determine students' learning rates, progress, and mastery of instructional objectives (Barrera and Liu 2010; Brown-Chisdey and Steege 2005). In the United States, DBDM is often achieved through use of curriculum-based measurement or evaluation, which are quick, reliable, cost-effective standardised formative assessment procedures drawn directly from classroom instruction and curriculum (Deno 2003; Howell and Hosp 2014; for detailed instructional guides, see Burns and Parker 2014; Hosp et al. 2016).

Depending on the results of screening and progress monitoring, instructional or curricular modifications may occur for the entire class, small groups or individuals. Ongoing assessment is essential to determining the effectiveness of any given strategy since there is no way to determine if specific interventions will work *a priori* for specific students. Research provides insight on what is likely to work under certain conditions; ongoing assessment allows for determination of actual effect on any given individual. Teachers should select instructional strategies and interventions based on the best available evidence, assess student progress to determine effects and change strategies if performance does not improve. For students who demonstrate chronic or severe difficulties despite multiple attempts at differentiation, diagnostic assessment can guide further individualization.

# DI for learners with special needs

When young ELs demonstrate inadequate linguistic development or academic performance that appears unresponsive to DI, it can be challenging to determine whether students' performance is attributable to insufficient opportunities to learn or special needs (Linan-Thompson and Ortiz 2009) since test scores alone do not allow for determination of whether difficulties arise from lack of instruction or learning problems (Barrera and Liu 2010). A problem-solving orientation to identify the cause of students' difficulty is especially valuable given the behavioural parallels between language acquisition and learning problems. More specifically, both ELs and students with learning disabilities may struggle to identify unfamiliar words, follow directions or participate in activities. Before considering that a student may have a learning problem, educators should rule out contextual determinants like language proficiency, cultural variability and educational experience (Sandberg and Reschly 2011). The iterative process of assessment and differentiation can assist in ruling out these factors.

To understand what children can and cannot do with proper instruction, practitioners may turn to dynamic assessment wherein the assessor provides explicit instruction in a new skill and monitors progress over a discrete period of time (Barrera and Liu 2010). Similar to their English proficient peers, ELs with learning disabilities generally show limited growth whereas a child whose challenges are due to typical language acquisition will show consistent gains in skill after explicit instruction (Linan-Thompson and Ortiz 2009). A small percentage of students have learning disabilities. ELs with learning disabilities comprise a heterogeneous group of students who experience complex interactions between language, culture, and language-learning ability. These students likely encounter literacy difficulties in both their native language and English, which complicates second

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language acquisition. This may increase the cognitive demand associated with engaging with classroom materials, necessitating additional scaffolding and differentiation (Garcia and Tyler 2010).

#### Current contributions and research

In this section, we briefly discuss the current context of research on DI with ELs. Little scholarship has focused on DI for language instruction. Available research evidence, however, suggests that DI supports literacy development, particularly phonological awareness, reading comprehension and narrative storytelling, when the types and extent of instructional supports are varied according to student differences (August et al. 2014; Healy et al. 2005; Reis et al. 2011; Weddle et al. 2016). DI practices utilised in this research included introducing books with discussion, cognitive strategy instruction, listening to students read aloud one-on-one, small group enrichment, buddy reading, phonological awareness interventions, encouraging students to repeat stories they hear then elaborate on their own experiences and creativity exercises.

The research support for assessment tools for young ELs is also limited and characterised by longstanding concerns for their reliability and validity (e.g., Baker et al. 1998). Recently, academic assessment systems have been developed and validated with ELs in mind (e.g., curriculum based measurement; for examples, see Richards-Tutor et al. 2012; McConnell et al. 2015). Given the dearth of research on DI for TESOL specifically, this chapter draws necessarily on scholarship addressing DI generally with students from culturally and linguistically diverse backgrounds, especially research related to literacy development in young ELs.

#### Recommendations for practice

Thus far, this chapter had addressed the historical and theoretical foundations of DI, basic elements of effective DI implementation and the current research base. In this section, we summarise the practices that may be used to enact the previously described elements and features commonly enumerated in DI scholarship. We focus on how DI can be tailored to young ELs by linking DI scholarship to effective instruction of young ELs in general education and TESOL contexts, and include recommendations for how to address common concerns about engaging students' families to maximise learning and integrating DI with other instructional initiatives.

# Putting DI into practice for young ELs

Implementation of the DI framework requires teachers to engage in several foundational approaches to instruction. These are detailed in Table 8.1 along with related classroom practices for young ELs, including instructional practices shown to be effective for supporting language and literacy development for ELs (August et al. 2014; Martinez et al. 2014; Tomlinson et al. 2003). However, teachers cannot effectively implement DI without first acquiring thorough knowledge in the subject area taught and current developments in research-based instruction and assessment in a given subject area (Watts-Taffe et al. 2012). For early childhood educators, firm understanding of typical and atypical child development is also critical.

Table 8.1 Key features and related practice for effective DI

Key Feature	Sample Related Practices
Design curriculum with learner variance in mind.	<ul> <li>Consider students' first language proficiency, English proficiency, academic skills, educational experience, learning rates and interests in design and planning of instructional supports.</li> <li>Use a variety of modes of presentation.</li> <li>Engage in ongoing formative assessment to gauge student progress and identify students for differentiation</li> <li>Use progress monitoring data to identify appropriate instructional goals for groups and individuals.</li> <li>Align instructional materials and tasks with students' present level of proficiency.</li> </ul>
Ensure students' understanding of key concepts, principles and skills in a given content area.	<ul> <li>Thoroughly understand local curriculum and subject matter to be taught.</li> <li>Use end goals for knowledge and skills students should have at the end of a sequence, unit or timeframe to plaid differentiated lessons and activities.</li> <li>Provide explicit instruction in phonics, vocabulary, phonological awareness, readings fluency and comprehension, writing mechanics, grammar, etc.</li> <li>Use pictures or other visual aids to illustrate meanings and contexts.</li> <li>Reinforce material through repeated exposures to strengthen learning (e.g., postreading vocab activity).</li> </ul>
Capitalise on students' interests and prior knowledge.	<ul> <li>Use active learning strategies.</li> <li>Construct novel and/or challenging tasks.</li> <li>Link instruction to students' experiences.</li> <li>Use materials that feature authentic multicultural identities.</li> <li>Encourage questions or conversations in and out of classroom context.</li> <li>Allow student choices of materials, tasks or topics when possible.</li> <li>Discuss linkages between current learning and prior knowledge or experience.</li> <li>Discuss relevance and utility of new knowledge or skills.</li> </ul>
Use students' first language proficiency to support development of new knowledge and skills.	<ul> <li>Preview or review English materials or tasks in student's first language.</li> <li>Allow for conversation during instruction in first language.</li> <li>Provide bilingual glossaries.</li> </ul>
Allow flexible pacing.	<ul> <li>Allow sufficient wait-time (&gt;10 seconds) when soliciting student responses to allow for cognitive processing.</li> <li>Allow students to progress through an assignment or activity at different speeds.</li> </ul>
Incorporate small-group instruction.	<ul> <li>Use groupings flexibly, based on students' current knowledge and skills.</li> <li>Match instructional materials to instructional needs of small groups.</li> </ul>

(Continued)

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Table 8.1 (Continued)

Key Feature	Sample Related Practices
Provide scaffolding to support development of new knowledge and skills.	<ul> <li>Engage in frequent progress monitoring to determine appropriate groupings.</li> <li>Use both heterogeneous groupings and skill-based groupings to achieve varied learning goals.</li> <li>Use peer-assisted learning strategies, cooperative learning activities and learning centres.</li> <li>Model the process or task before having the student do it.</li> <li>Create opportunities to use new vocabulary.</li> <li>Incorporate opportunities for teacher-student interactions with materials.</li> <li>Preview materials.</li> <li>Preview materials.</li> <li>Teach and model metacognitive and problem-solving strategies.</li> </ul>

### Engaging families with limited English proficiency

Interactions between families and schools impact children's learning and social-emotional development (Reschly and Christenson 2012). Ideally, schools work to build school-family partnerships in which the worlds of home and school are brought into congruence through shared goals, contributions and accountability (Reschly and Christenson 2012). To do so, teachers should eschew assumptions about 'hard-to-reach' families as being unconcerned about or uninvolved with their children's education since research contradicts this assumption (Mapp and Hong 2010). Instead, teachers should recognise that families may hold a variety of notions about appropriate involvement in schools and adults' roles (e.g., teachers as the unquestioned expert), and that dominant expectations are often implicit and unknown to families from culturally and linguistically diverse backgrounds (Arzubiaga et al. 2009). Schools should accommodate multiple means of family involvement and recognise their capacity to assist with learning (Mapp and Hong 2010).

Systematic strategies to cultivate positive relations and family engagement include treating families as equals in educational processes; encouraging parent-to-staff and parent-to-parent interactions; involving parents in decision making and school leadership; and enlisting outside agencies to act as cultural brokers within local communities (Mapp and Hong 2010). In addition, educators can emphasise instructional methods that place families in the role of educators and demonstrate value for the skills they possess in supporting young children's English development such as authoring dual language texts and family literacy nights (Delbridge and Helman 2016).

# Integrating DI with other initiatives

Beyond its theoretical foundations, DI is applicable to – and can be implemented within the context of – other contemporary educational initiatives that emphasise acknowledging and responding to diverse learners' needs through differentiation. Often, the desire to implement any new initiative, including DI, is pitted against schools' and teachers' limited resources. School leaders and teachers can reduce the burden by integrating initiatives wherever

feasible. DI should not be considered adjunctive to or separate from educational initiatives like multitier systems of support (e.g., response to intervention [RTI]), culturally responsive teaching [CRT], or universal designs for learning [UDL], but as a means for achieving the goals of these frameworks and vice versa. Such integration can increase general efficiency and a positive climate that benefits both teachers and students.

Many educators are familiar with response to intervention (RTI), a framework for instruction and intervention based on the multitier public health model of increasingly individualised and intensive supports to meet learner needs. The goal of RTI is to support learning by providing a high-quality curriculum for all students and supplementing instruction with differentiated supports when necessary (Gettinger and Stoiber 2012). DI strategies such as small-group instruction and matching instructional materials to individual needs are often employed when students demonstrate needs beyond the universally provided research-based curriculum and instruction (Tomlinson et al. 2003; Al Otaiba et al. 2011; Gettinger and Stoiber 2012). RTI also provides several tools to facilitate identification of learner needs and appropriate differentiation through DBDM.

Integration of DI may also bolster efforts to engage in CRT, which calls for teachers to establish strong relationships with their students, understand their cultural backgrounds and differentiate instruction to be responsive to students' backgrounds and needs (Klingner and Edwards 2006). DI's emphasis on individualization and capitalizing on students' interests and experiences makes it well suited for application within a CRT framework. In turn, CRT places great value on teachers' understanding of students' cultures, community values and home learning practices, and using that knowledge to enhance instruction and provide a classroom environment more conducive to learning by incorporating culturally based practices (e.g., storytelling). In this way, CRT is complementary to DI. In addition, CRT highlights the importance of embracing cultural differences and the cultural nature of learning, such as the following: challenging interpersonal biases, practices or procedures that disadvantage students from culturally diverse backgrounds (e.g., beliefs that all students must be taught the same way and progress at same rates; application of punitive discipline procedures; dismissal of cultural knowledge and preferences); eschewing privilege to support equitable educational access, participation and outcomes; and believing all students are capable of educational success (Klingner et al. 2005). All of these notions are compatible with DI.

Similarities can also be drawn between DI and UDL, an approach to designing learning spaces by emphasizing flexibility and versatility to ensure all students can access the space, curriculum and instruction through multiple means of representation, engagement and expression (Horn and Banerjee 2009; Kaderavek 2009). Universal design of learning was originally conceptualised as a movement to make physical spaces universally accessible, and later expanded to UDL to emphasise educational and informational accessibility (Rao and Skouge 2012). Educators are encouraged to tailor instruction to address a wide variety of abilities, allow students to interact with material in ways they find most interesting or as needed given sensory or learning differences (e.g., visual or hearing impairments, reading disability) and provide a platform for students to respond to class material in a variety of ways that demonstrate what they know (e.g., allowing oral, written, graphic and pictorial responses). At their core, both DI and UDL serve as means for all students to access and participate in the same curriculum (Horn and Banerjee 2009; Watts-Taffe et al. 2012). For educators, application of UDL's principles of flexibility in providing varied means of representation, engagement and expression based on learner needs and preference can be essential to effective DI.

#### **Future directions**

Here, we discuss avenues for future research given the current knowledge base for DI. In particular, we consider how future DI research can clarify issues related to appropriate assessment and instruction for young ELs in TESOL contexts.

There is a robust and growing research base for DBDM, and numerous studies to support use of DI, but there is less known about the effectiveness of these practices with young children and ELs. Additional research is necessary to validate assessment tools with young ELs and to establish new ways in which to evaluate the language and literacy abilities of culturally and linguistically diverse students, particularly those who are bilingual or learning English. Most research on ELs has included students with similar language and socioeconomic backgrounds, which may not generalise to heterogeneous contexts, or researchers do not report on the linguistic or cultural diversity of participants, which does not allow for inferences about the generalizability of findings to specific EL subpopulations. Better, more culturally responsive assessments will allow for more accurate identification of learner needs and effective DI.

DI can also be challenging in pre-kindergarten settings that lack formal curriculum, which makes it difficult to determine whether or not students are in need of additional supports (Carta et al. 2016). In addition, extensive variation between pre-kindergarten programmes in academic resources, quality of instruction, training and credentialing of staff, hours of operation and other features can impede implementation of research-based assessment and instructional practices because of the difficulty in identifying and adapting applicable research (Carta et al. 2016). Nonetheless, when operating from an orientation of DBDM, early childhood educators can make instructional decisions based on the best available research and assess effects to identify where additional adaptations or strategies are warranted.

Culturally responsive instruction and assessment are promising methods for preventing inappropriate educational practices that hinder students' development; however, evidence must be gathered in order to validate instructional practices and determine what works with diverse populations of students. The issue of effectiveness becomes more complex when we conceptualise instructional practices within an ecological context because it emphasises the importance of considering for whom and under what conditions a given practice is effective. A proper interpretation of existing literature requires educators to ask probing questions (Klingner et al. 2005): Were the students in the sample similar to the students in my setting? Is the context of research similar to my own? Without consideration of these questions in practice – and without research that allows practitioners to respond affirmatively to these questions – students are vulnerable to ineffective and culturally unsupportive instruction.

DI serves as a powerful tool within the classroom; however, the strength of its impact relies on correct implementation. Evidence suggests that active coaching can help instructors implement evidence-based practices with fidelity. By developing relationships with knowledgeable and experienced coaches, teachers acquire the knowledge and tools for effective DI (Snyder et al. 2015). Yet, many questions remain about the best way to implement coaching: Who needs additional coaching? How should it be delivered? How often? With additional research focused on these questions, practitioners will gain a better understanding of how to support teachers in their efforts to differentiate instruction accurately.

Evidence-based practice (EBP) occurs when practitioners make decisions based on the best available research, student and family characteristics and preferences and site resources. One challenge for implementing research-based practices is identifying the factors which

may facilitate or hinder implementation, and how adaptations to research-based practices affect students' outcomes. Yet, DI relies heavily on iterative adaptations, so we need to test empirically common adaptations. This knowledge base can be enhanced through practice-based evidence research (PBER) wherein practitioners collect data on the effects of adaptations or modifications to interventions in order to increase their overall ability to support students' outcomes (Kratochwill et al. 2012). Moreover, thoughtful PBER has the potential to provide evidence about the extent to which certain instructional practices are culturally responsive. While PBER is conceptually appealing, there is no consensus about standard criteria for practice-based evidence. It is thus the responsibility of the scientist-practitioner to adopt methodologies with sound foundations in order to collect accurate information.

#### **Further reading**

- Buysse, V. (2013). Handbook of response to intervention in early childhood. Baltimore, MD: Paul H. Brookes.
  - This book provides information on the application of RTI in early childhood education settings, and includes chapters on RTI for young ELs, and language and literacy development.
- 2 Jimerson, S. R., Burns, M. K., and Mathany VanDerHeyden, A. (2016). Handbook of response to intervention: The science and practice of multi-tiered systems of support, 2nd ed. New York: Springer. This handbook provides comprehensive coverage of conceptual and practical aspects of RTI to support students' academic development in elementary and middle school.
- 3 Lapp, D., Fisher, D., and DeVere Wolsey, T. (2009). *Literacy growth for every child: Differentiated small-group instruction K-6*. New York: Guilford Press.
  - This book describes collaborative learning strategies and small group activities to facilitate differentiated instruction.
- 4 McGee, L. M., and Richgels, D. J. (2014). Designing early literacy programs: Differentiated instruction in preschool and kindergarten, 2nd ed. New York: Guilford Press.

This book provides an overview of DI, including RTI, and describes the application of DI in language and literacy instruction for young children, highlighting learning activities and assessment with examples, vignettes and reproducible materials.

# **Related topics**

Classroom management, assessment, teaching grammar, projects

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