Standards-Based Assessments for Science in Inclusion Kindergarten: Language, Content, and Teacher Education

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Introduction

Inquiry into teaching practices assisted us in preparing, implementing, and assessing science instruction for the inclusion kindergarten classroom to meet the needs of all kindergartners, including our English learners (ELs). We, an undergraduate teacher candidate completing student teaching in English as a second language (Katlyn) and a university faculty supervisor (Sarah), read and applied research on standards-based teaching to determine whether we met our state's standards at three levels: language for ELs; science as subject content learning; and teacher development in planning, implementing, and reflecting on effective kindergarten instruction. Careful analysis of the Ohio Standards for ELs, science, and the teaching profession assisted in the development of a series of hands-on and interactive lessons designed to teach and assess language and science learning.

Our class, in small town Ohio, USA, is one of three kindergarten classes at the school, each serving randomly assigned learners. Our group of 26 kindergartners, including seven ELs, is typical for the distribution of ELs in kindergarten classes at our school. Kindergarten through second grade ELs are taught in inclusion classrooms, and all three elementary schools in the district serve preschool through fifth grade with English-speaking children and ELs. The ELs in our kindergarten classroom are largely Spanish and/or autochthonous Mayan language speakers, such as Quiché or Ixil.

Lessons for our kindergartners cover a range of language, math, science, and school readiness skills. Instruction and assessments must meet grade-appropriate performance on Ohio standards for science and literacy. Preliteracy, early literacy, and numeracy concepts are all essential skills to weave into content instruction while supporting early literacy learning in all learners, and ELs in particular.

In this chapter, we describe how the *TESOL Quarterly* article, "Language Assessment in Standards-Based Educational Reform" (Menken, Hudson, & Leung, 2014) helped us identify challenges in meeting EL needs for both content and language learning in a standards-based curriculum. Our lesson plan reveals how the teacher candidate, Katlyn, brought instructional practices and in-class assessments together to balance formal standardized assessments in language, math, and reading. Katlyn's reflections demonstrate that assessment data can be used to improve instruction and provide a richer picture of individual learner proficiency within developmentally appropriate contexts of learning, all meeting Ohio Standards for the Teaching Profession (Ohio State Board of Education & Ohio Board of Education, 2007).

Synopsis of Original Research

Menken, K., Hudson, T., & Leung, C. (2014). Symposium: Language assessment in standards-based education reform. *TESOL Quarterly 48*, 586–614. doi: 10.1002/tesq.180

Inquiry into language and science learning in our kindergarten inclusion classroom was inspired by Menken, Hudson, and Leung (2014), who together in a symposium article in *TESOL Quarterly* explored standards-based reforms and realities in schools in the United States and England. The symposium served as a forum for the researchers to share views and firsthand observations of standards-based assessments in these two English dominant countries in which ELs often underperform on language, literacy, and content subject assessments. The symposium was written in an accessible way and served as a good reinforcement of concepts and issues in assessment for the teacher candidate, such as validity and reliability in test construction and use, and potential social consequences for high-stakes standardized tests.

Menken et al. (2014) provided scope and perspective for standardized and teacher-generated assessments and the challenges facing ELs and their teachers. Both the United States and England have a monolingual ideology reflected in English language education policies in which learners are expected to meet grade-appropriate language and content learning just like their monolingual peers with a minimum of support. As Leung states, "evaluating students by the same criteria dictates homogeneity despite the diverse population" (Menken et al., 2014, p. 598), and differentiated instruction and assessments crafted to meet learner needs aren't possible in one-size-fits-all forms of assessment. In England, Hudson concludes "*the same English for all* principle has created considerable complexity for assessment (and pedagogy more generally), particularly in terms of appropriateness and validity of universal 'standards' for linguistic minority students at various stages of English learning" (Menken et al., 2014, p. 600). Children in the United States and England often take the same standardized tests developed for their English monolingual peers. While ELs may receive some "state-determined accommodations, such as extra time, bilingual dictionaries, and/or test translations" (Menken et al., 2014, p. 603), these are often insufficient to level the educational playing field with English monolingual peers in reading and math proficiencies.

Rationale

The symposium challenges us as teaching professionals to push beyond the *same English for all* principle. Leung demonstrates the urgency because rapid immigration to the United States means that "20% of those older than five come from homes where languages other than English are spoken" (Menken et al., 2014, p. 600), including the top three language groups, Spanish, Vietnamese, and Chinese. Under U.S. policies of No Child Left Behind (NCLB, 2010), underperforming schools, often those with high numbers of ELs, are threatened with "sanctions, possibly even restructuring or closure" (Menken et al., 2014, p. 601). Though NCLB is no longer in force, it is clear that the needs of many second language speakers in our schools are not being met.

As language teaching professionals, Menken et al. (2014) remind us that we are guided by various educational organizations, from transnational agencies to national and state governmental agencies, all contributing to the development of our local systems of standards situating learning in the local context, including the Ohio English Language Proficiency Standards, Ohio Science Standards, and Ohio Standards for the Teaching Professions. These guide our goals for instruction, assessment, and reflection.

Sarah supervised Katlyn as she addressed issues raised in the symposium when formulating and carrying out a sequence of science lessons in her inclusion kindergarten classroom. Within the lessons, Katlyn varied assessments and language supports and scaffolds to assist the ELs in the inclusion classroom with suggestions and follow-up observations by Sarah and the cooperating classroom teacher. Rather than taking a one-size-fits-all approach to instruction and assessment, we were able to tailor language and content supports to the ELs while meeting standards of school readiness, language, literacy, and science for all.

Lesson Plan

Lesson Plan Title	Kindergarten Science and EL Lesson Plan in the Inclusion Classroom
Grade/Subject Area	Kindergarten; Science
Duration	30 minutes
Proficiency Levels	Ohio English Language Proficiency Levels 1–2
Content and Language Objectives	Students will be able to • understand the concept of interactions of mass, volume, and density in water. (Content) • make predictions from prior knowledge. (Content) • observe, explore, and record data on a data chart. (Content) • compare the properties of known objects. (Content) • infer the outcome of a problem based on evidence. (Content) • recognize science-specific terminology: mass, volume, gravity, density, sink, float. (Language) • pronounce and recognize the first letters of these and daily item vocabulary. (Language) • understand that sink and float are actions. (Language) • answer redundant content questions with a correct response. (Language) • create full sentences and thoughts with the objects and verbs introduced. (Language)
Alignment to Standards	**Ohio State Standards** **Content** *Ohio Science Standards (Ohio Department of Education, 2011)* • Objects and materials can be sorted and described by their properties (p. 29). **Language** *Ohio English Language Proficiency Standards (Ohio Department of Education, 2015)* • Participate in grade appropriate oral and written exchanges of information, ideas, and analyses. (Standard 2) • Listen with limited participation in short conversations and respond to simple yes/no and some wh- questions about familiar topics. (Standard 2)

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Lesson Plan *(continued)*	
Alignment to Standards *(continued)*	**Teacher Development** *Ohio Standards for the Teaching Profession (Ohio State Board of Education & Ohio Department of Education, 2007)* • Understand student learning and development and respect the diversity of the students they teach. (Standard 1) • Model respect for students' diverse cultures, language skills, and experiences. (Standard 1) • Understand student development and the value of prior knowledge. (Standard 1) • Recognize characteristics of gifted students with disabilities and at risk students in order to assist in appropriate identification, instruction and intervention. (Standard 1) • Demonstrate knowledge of assessment types and purposes and use of diagnostic, formative, and summative assessments. (Standard 3)
Outcomes	**Content** • Predict outcomes of the experiment. • Experience actions of sinking and floating. • Record information properly in a graphic organizer. **Language** • Recognize, pronounce correctly, and use target vocabulary within the experiment. • Respond to questions verbally and nonverbally. • Ask questions and make statements about the experiment. **Teacher Development** • Observe and implement strategies for ELs and their English monolingual peers. • Offer tools and strategies to ELs that include them in all aspects of the experiment, from prediction to observation and discussion to data recording.
Materials	**Visuals With Literacy Support** • Interactive white board • Teacher-prepared slides with pictures and vocabulary • Sink-Float Data Chart (see Table 1) as a slide and as a handout **For the Experiment** • 1 large clear tub at the teacher's station (10 gallon) • Table-sized clear tubs (1 gallon, 1 for each group of learners) • Water to fill tubs 1/2 full • Everyday objects • Lemon • Rock • Piece of paper • Toy boat • Penny • Pencil • 3 lb. weight • Miniature candy bars

This lesson focused on using evidence gained from participatory observation to complete a variety of oral and written performance assessments. State standards for ELs focus on assisted performance, and informal formative assessments enabled all learners to demonstrate their questions, hypotheses, and growing knowledge of the science topics in question (buoyancy, mass, weight, and density).

The EL proficiency levels in our kindergarten classroom range from the stages of prefunctional to beginner language acquisition, as defined by the Ohio Department of Education (See Additional Resources). Prefunctional students in the class are gradually emerging from a silent period and responding to yes/no questions, repeating commonly used words and phrases, and interacting with increased frequency with English-speaking and non-English-speaking peers. Prefunctional learners often listen attentively and give physical responses to commands and questions, but they rarely speak on their own, and when teachers, like Katlyn, have bilingual skills, some support is provided to learners through their home languages. Those who function in the beginner stage of acquisition speak in one- or two-word phrases, or they repeat memorized forms and sentences, but they also initiate and construct thoughts independently.

Highlighted Teaching Strategies

Visual supplements

The highlight of the lesson includes the hands-on nature of the water tubs, all filled half with water, one large one at the teacher's station and smaller ones (which can be quickly distributed after the class demonstration for group experimentation) on communal tables. The everyday objects used for the experiment are things that the children are familiar with.

For target science vocabulary, Katlyn prepared a literacy slide with an image and the written word for each new term (e.g., *float*, *sink*, *water*). Her live demonstration reinforced orally how each new word is used, and the literacy slides focused on written forms and pictures of the concepts or terms for display. The teacher and learners repeated words orally while the teacher or a learner pointed to the word on the slide. All students in the classroom benefit from seeing, hearing, and experiencing science vocabulary, so the combination of the slides and the flotation tub provided visual support to learners to connect the common everyday objects with the new science terminology, thereby building schema and aiding in science and language acquisition for both ELs and their monolingual peers. In addition, Katlyn prepared a literacy slide with the written word and a picture of the everyday item that students were to use during the experiment to promote literate practices and to reinforce the names of these everyday items.

Native language permission

At certain points of the lesson, learners were allowed to converse in their native language together. The cooperating teacher and the teacher candidate both speak Spanish, and because many of these learners are experiencing English through discovery, both English and Spanish languages facilitate learning, strengthen understanding of new English vocabulary, and build confidence through dual language processing.

Though the classroom followed an English medium of instruction approach, some Spanish language support clarified new learning and facilitated task completion. Additionally, by allowing the learners to speak to one another to clarify instructions or brainstorm together, goals of content learning were achieved efficiently. Allowing home language interactions among peers supports Ohio Standards for the Teaching Profession of respecting culture, drawing on learners' prior knowledge, and intervening in instruction in support of learners.

Physical response

Students were able actively to show comprehension of language and content through physical response to questions. Students demonstrated by raising a hand to indicate their response as to whether an object would sink or float and to state a reason for their prediction. Learners could also be brought forward one by one to demonstrate the experiment to classmates to support their predictions and demonstrate proper experimentation procedures. The teacher demonstrated how to use the data chart using a visual slide for the class to record observations. Student volunteers also marked on the sample chart on the interactive white board what their observations were to show how the data chart works to record scientific data.

Smaller flotation tubs were quickly distributed to group tables for the experiment. Our classroom is configured into four table pods with about eight learners per pod. One child at each table showed three items one by one and conducted the experiment. Classmates observed and then marked an X in the appropriate box on their data chart to show whether the items sank or floated. The written response showed that the student understood the data collection function of a data chart (a useful scientific tool). Follow-up discussion had students compare their data charts with a partner. The ELs began the experiment by observing peers perform the experiment and then marking their data charts. Peers and teachers helped the ELs to complete their charts and, in turn, complete the experiment with everyday items.

Preliteracy phonemic awareness

As vocabulary was introduced, students were asked to concentrate on making the sound of the first letter in that word, and while many of the letters and sounds had been introduced prior to this lesson, Katlyn pronounced these words clearly and practiced demonstrating the phonemic-graphemic connection reinforced with the interactive white board slides. Phonemic onsets in words and matching this to an alphabetic grapheme are essential early literacy skills that were reinforced in this science lesson. Because both technical terminology, such as *float*, and everyday items, such as *apple*, were included in the slides, students had multiple opportunities to engage with oral-literate connections by pointing to the words and by finding the onset letters on their data charts.

Use of a graphic organizer

A graphic organizer, in this case a data chart (see Table 1), the Sink-Float Chart, is a useful tool in the sciences for tracking data during an experiment. The data chart helped students to focus on the three items they needed to collect and record evidence on as the experiment unfolded. At the completion of the experiment, the

students also used the chart to assist in peer discussion to form an explanation and summary of discoveries. The teacher's use of the interactive white board data chart summed up group findings.

Procedures

Introduction of material

Begin the lesson by asking the class if they know what the words *sink* or *float* mean. After letting the students brainstorm ideas and answer the question, show two literacy slides and ask students to listen for these two important words during the lesson. Next, present everyday words using literacy slides for support.

Key science terms

As each new term is introduced, orally deliver the definition and present a demonstration of the term along with the literacy slide on the interactive white board. Focus on initial letters and phonemes as well as meaning. The key science terms follow:

- *Mass*: Present various objects of different weights and sizes, including oneself.
- *Volume*: Show a balloon before it is inflated and after it is deflated. Compare the sizes and explain how they exemplify a difference in volume.
- *Density*: Drop a dense object, such as a hard rubber ball, into the tub of water and ask students to observe what the water around the object is doing. When the water moves up, the students observe that the volume of that object is taking up space and displacing water.
- *Float*: Choose an object that will float on the top of the water, such as an apple, to show that the object will stay near the top of the water.
- *Sink: Choose an object that will sink to the bottom of the tub to show that the object goes below the water.*

For each literacy slide, emphasize the first letter and the sound that it makes. Students can watch the movements of your mouth for the correct pronunciation and move their mouths in formation of word onsets, like 'f' in *float*. You can readily see which students are producing the sounds correctly and whether they are looking at the slide. Choral repetition of the literacy items using the written slides with images and the oral reinforcement of the sounds helps learners connect new learning with what they already know.

Experiment time

The whole class performs the experiment with a succession of student helpers at the teacher's station. Learners call out predictions of whether objects will sink or float. Pay specific attention to calling on the ELs to indicate their predictions. Table 1 contains a sample data chart to record class findings; first, you should demonstrate how to use the chart using the board and the teacher flotation tub.

The students first make a prediction for the lemon by raising their hands quietly in response to your questions, "Do you think the lemon will sink?" and "Do you think the lemon will float?" After the students make their predictions, students

Table 1. The Sink-Float Data Chart

Objects	Sink	Float
Lemon		
Rock		
Piece of paper		
Candy bar		

observe as you place the lemon into the tub of water. As the lemon floats on top of the water, demonstrate to the students where to place the X in the correct box. The same process is repeated for the rock. Next, have a student volunteer play the experimenter role for the class to continue to demonstrate buoyancy.

Each student then receives a chart of their own to complete with new common objects for the experiment. Students are asked to grab a pencil, write their name (which most learners can do), and look at all of the experimental objects that the experimenter will be using. Just as during the model experiment, students make a prediction, observe the experiment, and then record their findings in the correct data box. As each object is dropped into the tub, allow ELs to touch and feel it and describe the objects to their classmates using previously learned vocabulary that you prompt, such as *heavy* and *light*. This allows the ELs to feel weight and surface area of the object to assist in the prediction-making process. This step has the additional benefit of connecting the object with the new vocabulary words. After students record the last bit of data from the whole-class observation, tell the students they will be performing the experimental procedures on the next objects themselves.

Individual exploration

Students perform the Candy Bar Challenge at their tables with their own tubs of water. Give students at each pod of tables a smaller tub of water, and give each student their own miniature candy bar. First, the students apply their five senses to the wrapped candy bar to gather information to predict whether it will sink or float as demonstrated in the class experiment. After some observation time and class discussion, ask students whether the candy bar will sink or float. The students raise a quiet hand in response. Each student then takes a turn dropping their wrapped candy bar into the tub. After this, they individually mark an X on the data chart, without assistance, to mark their experimentation results. This mark serves as a formal assessment of both content and language understanding.

Closing

As the students then unwrap and eat their candy, show students pictures from each of the terms that were introduced at the beginning of the lesson for review. Next, pose the question, "What are some of the *big* science words that we learned today?" As students answer the question, return to the original slides to display to the students the written word, the oral pronunciation, and the visual representation. Students review together again with a focus on word onsets and phonemic-graphic connections.

Extension

If there is extra time, provide students with an additional data chart similar to the one they completed in class (see Table 2).

Ask students to think of objects around their house. Quickly write down these objects in the empty objects column of their chart, or have the children draw pictures. The students then take their own charts home and perform the same experiment that they did in class with their families. Tell students to ask parents and guardians for permission and assistance to perform the experiment in a bowl, basin, sink, or bathtub. If you have the ability or resources, prepare in advance and provide simple instructions in English and Spanish to help with family bilingual learning. The students should be encouraged to act as the teacher and ask their families to make predictions as they did in class using the five senses and common household items. Give out incentive awards to students who return their completed charts, which can be used as further review for the whole class.

Caveats

Risk of a mess. With the number of physical interactions that this experiment entails, there is a risk of spilling or causing a mess. The decision to put tubs of water on the students' desks and drop wrapped candy bars into those tubs could have caused a major distraction in the kindergarten classroom; therefore, it is important to judge the maturity and readiness of students before you implement the hands-on portion of the experiment. Katlyn's kindergartners are accustomed to managing snacks in class, such as not unwrapping items or eating or drinking prior to being instructed to doing so, so the experiment was a success. An alternative with other groups would be to ask children one by one to assist the teacher in the experiment with different items. Having learners do the experiment in their pods with peers, however, solidified instruction and created the experience of performing a scientific experiment. Learners felt accomplishment as they saw their predictions become reality.

Grouping students. To best serve the ELs within the inclusion classroom, it is important to have them sitting in mixed groups including other native speakers of their home language as well as English monolingual speakers. By grouping students together, learners support each other in completing tasks while utilizing all linguistic resources available to them. Grouping students has to be done thoughtfully for it to function properly. Among these groups, you can differentiate the means in which students respond to interactions and activities. Stronger speakers may be challenged

Table 2. Student Data Chart

Objects	Sink	Float
Penny		

to give more oral responses with the help of their native peers, and weaker speakers may be encouraged to perform a motion or physical response to convey understanding. In our pods, all learners actively participated in literacy activities, such as orally repeating the onsets of words and whole words, and they had fun showing each other what to do with your lips when producing specific sounds, such as an 's' sound, as in *sink*.

Spanish language support. Using Spanish in the classroom to assist students' second language acquisition of English provided some classroom support to many of our ELs. A few, however, did not speak Spanish, although at times their multilingual peers translated into the Mayan language. Home language support clearly assisted many students within the inclusion classroom. Katlyn found home language use helpful among peers to assist in clearing up details or brainstorming ideas in the content-based discussions; without this assistance, students may not have been able to participate as well. Not all of the ELs speak Spanish, so those learners relied more on their peers or on providing nonverbal responses.

Whole class and individual learner performance observation. As the informal assessment chosen for this type of lesson is monitoring the students, it is important that you spend intentional time observing and recording a few notes throughout or after the lesson on EL performance. With a larger classroom size, you cannot possibly observe all students on an individual level all the time. However, Katlyn was able to gauge overall classroom performance and record actions that specific students carried out on a rotating basis in which certain children were the focus of her observations on specific days (see Table 3). In this particular lesson, Edith,[1] Frankie, and Rosa were observed, and they each met different objectives in each of their experiences. We were able to see most students could follow along with the spoken instructions, but only one of them was able to individually record the experiment's evidence in the graphic organizer. Targeted observations within a larger picture of overall classroom performance gave an indicator of which children were meeting language and content standards and which children needed additional support.

Assessment and Evaluation

With an experiment of this nature, an informal type of assessment is a favorable approach to gauge whether students understand the terms, content, and procedures of the lesson. First, you can watch for a physical response to the questions during the instructional phase. In the case of ELs, demonstrating physically that they know a question has been asked and that they need to respond along with their classmates shows both language awareness and school readiness. When performing the experiment itself, students put into practice their understanding of the function of scientific experiment and content knowledge of floatation. Recording the observational data with pod peers also reinforces collaborative activity and action in science learning and allows the ELs and their kindergarten peers to learn from each other. Finally, you can use the data charts to formally monitor individual learner understanding and to demonstrate to families their science and language learning.

[1] Student names are pseudonyms.

Table 3. Selected Student Observations

Name	Date	Subject Observed	Areas of Growth	Areas of Concern	Objectives Met	General Observations
Edith	10/14/2016	Science, Principles of Buoyancy	E. took initiative to respond to whole group activity. E. responded orally or physically.	E. was able to consistently connect the response of the whole group to the individual record on her chart. E. required a lot of Spanish language support.	E. predicted outcomes of the experiment. E. experienced actions of experiment. E. asked questions about the experiment in English and Spanish.	E. worked better and was more motivated with her peers. E. asked her friends for help and did not copy from their charts.
Philip	10/14/2016	Science, Principles of Buoyancy	P. worked with his peers to complete the experiment. P. marked his data chart accurately.	P. was distracted during the group experiment. By asking him to help with the demonstration, he regained motivation.	P. demonstrated how to mark the data chart correctly. P. modeled to a peer how to use the data chart.	P. gained motivation by working with classmates and being the helper. Engage P. more frequently as peer model.

Reflection on and Analysis of the Lesson

First and foremost in this reflection, this lesson was meant to integrate language and science standards within the kindergarten classroom with a specific focus on assessment practices. The lesson was crafted to be useful to all learners in the inclusion classroom. By preparing this series of lessons, Katlyn got hands-on experience working on language and content standards with support from her university supervisor, Sarah, and her cooperating teacher. Experiments and activities were continuously supported by new literacy practices (e.g., literacy slides, phonemic-graphemic connections, and images) of words the children could find in their everyday lives as well as new science-related terminology. Additional science lessons, aligned directly to Ohio State Science Standards, followed a similar approach to integrating language and content, including such supports as literacy slides on topics such as weather, living and nonliving things, states of matter, and sound waves. Katlyn demonstrated how scientific inquiry processes were practiced with each of these topics, providing hands-on, experiential learning opportunities in science, including acting as researcher to identify and classify things, to use the five senses in scientific

observation, and to record findings on a scientific graphic organizer, in this case the data chart. She provided extra supports to the ELs, including peer support, physical indications of understanding, some Spanish language assistance, and abundant repetition and demonstration using hands-on resources. Through connecting content and language standards in meeting the needs of her ELs in the inclusion classroom, Katlyn additionally demonstrated that she met Ohio Standards for the Teaching Profession.

In the classroom, children gained agency and control over their own experiment in the Candy Bar Challenge with opportunities to change roles from observer to experimenter. Rather than seeing the candy as a reward in itself, children all took on the role of experimenter and worked toward task completion. The kindergartners all participated and demonstrated varied competencies in using English to experiment and record data on buoyancy. For example, we were able to see Edith ask her native-English-speaking classmates clarifying questions, and we observed Rosa trying to match the written vocabulary on her graph with the physical movements and oral pronunciation of words as she pointed to which word she thought was *sink* or *float* on her paper. Philip enjoyed being in charge of the experiment with his candy bar at the end of the lesson and stayed on track with all of the oral instructions.

Cook (2012) reminds us that "bilinguals' distinctive qualities must be understood and evaluated independently of monolinguals, or they will always be positioned as failures" (as cited in Menken et al., 2014, p. 602). Knowing that our ELs might be left behind, Katlyn built several checks on individual performance through formal and informal assessments of the ELs as well as by taking general measure of the class at large. By rotating observation of several individual ELs with brief notation following class each day using the chart in Table 3, Katlyn was able to evaluate each learner's performance in more detail on a daily rotating basis, which aided in planning for further interventions and support in language, science, and school learning. In addition, the tracking of individuals over time allowed for Katlyn to demonstrate learning to parents and administrators, to cater to individual learner needs, to draw on learner strengths, and to help learners move beyond their weaknesses. "That emergent bilinguals do not perform as well as English monolingual peers does not necessarily mean they are failing to acquire English or academic content but rather reinforces that these students are in fact language learners" (Menken et al., 2014, p. 605). By considering both informal and formal measures of student learning, teachers endeavor to support each learner in meeting language and content standards.

At the kindergarten level, the Ohio English Language Proficiency Standards do not differ greatly from the English Language Arts Standards (see Additional Resources), but in higher grade levels the divergence between standards for ELs and English language arts is noticeably greater. Newcomer students entering school districts with limited or interrupted schooling and low levels of English proficiency are being left behind as Menken et al. (2014) demonstrated. An unfortunate effect has been "narrowing the curriculum to focus on tested subjects" (p. 607) with preparation for reading and math tests being given instructional time at the expense of bilingual education and other supports. High-stakes testing, such as year-end tests toward graduation, both demonstrate and contribute to such curricular narrowing.

Menken et al. (2014) warn us that "emergent bilinguals disproportionately fail these exit exams, barring them from graduation" (p. 606) and "although 52% of emergent bilinguals passed California's [English language proficiency] test, earning reclassification as English proficient, only 10% actually passed its English Language Arts exam" (p. 604). Accommodations like bilingual dictionaries or extra time are not enough to allow children to demonstrate content and language learning.

Locally, and as Katlyn prepares to move beyond the kindergarten inclusion classroom, we continue in the United States and elsewhere to ask how to accommodate students entering school at varied ages and educational backgrounds. Some of the ideas on meeting kindergarten language and content learning can be applied to older children, such as connecting oral language with written language support, even for everyday objects being used in science experiments. Asking learners to work together collaboratively and providing bilingual support or permission to use second languages in learning are useful strategies for any grade level. What are the implications for high-stakes testing beyond the K–2 inclusion classroom? Lessons learned from the symposium point to continuing to build any sort of support necessary to assist ELs in language, content, and school literacies, including using visuals and phonemic-graphemic supports in learning new or supporting known vocabulary, using collaborative groups to complete classroom tasks and assessments where task completion is rewarded, creating and using simple data sheets that connect language and content learning, and allowing for bi- or multilingual support by acknowledging and celebrating students' prior knowledge and language skills. We must continue to consider ways for our ELs to demonstrate proficiency in content knowledge and language abilities, not just on formalized assessments but also in daily classroom learning of language, content, and, in our case, school readiness. A simple nod of the head in predicting whether an object will float or sink, a mark in a data chart to indicate observations in an experiment, and modeling and hands-on collaborative classroom conversations all promote and validate learners' developing language and content learning.

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