Research Report

Conceptualizing the Use of Translanguaging in Initial Content Assessments for Newly Arrived Emergent Bilingual Students

Alexis A. Lopez

Sultan Turkan

Danielle Guzman-Orth

December 2017

ETS Research Report Series

RESEARCH REPORT

Conceptualizing the Use of Translanguaging in Initial Content Assessments for Newly Arrived Emergent Bilingual Students

Alexis A. Lopez, Sultan Turkan, & Danielle Guzman-Orth

Educational Testing Service, Princeton, NJ

Translanguaging refers to the flexible use of the bilingual repertoire. In this report, we provide a theoretical framework to support the use of translanguaging to assess the academic content knowledge of newly arrived emergent bilingual students. In this report, we argue that translanguaging offers newly arrived emergent bilingual students the opportunity to demonstrate what they know and can do even if their English language and literacy skills are not fully developed. We propose two principles for incorporating translanguaging into initial content assessments for late-arriving emergent bilingual students, and we theorize how translanguaging can be used within an assessment context by discussing test design applications and considerations. We also discuss some challenges when incorporating translanguaging within an assessment context.

Keywords Translanguaging; bilingual assessments; emergent bilinguals; initial content assessments

Most content assessments reflect a monolingual or monoglossic or fractional view of language and tend to ignore the complex and discursive practices used by bilingual speakers (Lopez, Guzman-Orth, & Turkan, 2015; Shohamy, 2011). The underlying assumption in a monoglossic or fractional perspective is that there is no difference in the language development of monolinguals and bilinguals. The bilingual student can be seen, then, as the sum of two monolinguals with access to two detached language systems that develop in a linear fashion and are assessed separately from one another (Grosjean, 1989). In this view, languages as they reside in the minds of bilingual individuals are treated as separate entities and not as a unified system that bears the resources of all the languages. Consequently, monolingual content assessments that reflect a monoglossic perspective expect all students to operate in and through one language, even if they may have multiple languages in their repertoires. In general educational contexts (not just in educational assessment), monolingualism has historically been viewed as a norm, and the bilingualism and bilingual practices of plurilingual speakers or communities have often been ignored (García & Torres-Guevara, 2010).

Multilingualism has been receiving increasing attention in the fields of second-language acquisition and multilingual education in recent years. In 2011, a special issue of the *Modern Language Journal* discussed multilingualism in school contexts and called for a more holistic approach to multilingual education (Cenoz & Gorter, 2011). Also, a special issue of the *International Multilingual Research Journal* discussed transforming literacy teaching and learning through translanguaging (Gort, 2015). Moreover, recent empirical research studies have documented the language practices of bilinguals in school or classroom settings (García, 2011; Hornberger & Link, 2012; Martin-Beltrán, 2014; Wei, 2011) and have documented the instructional practices of teachers and the ways they promote the use of translanguaging in the classroom (Creese & Blackledge, 2010; García & Leiva, 2014; Palmer, Martínez, Mateus, & Henderson, 2014; Velasco & García, 2014). Even when teachers do not allow or promote translanguaging, it occurs secretly in multilingual classrooms (Canagarajah, 2011b). This new perspective on the education of bilingual or multilingual students creates the need to find alternative ways to assess bilingual students.

Scholars have pointed out the need to improve existing assessments and develop new ones that are sensitive to the heterogeneous nature of bilingual students (García, 2009; Sanchez et al., 2013). García (2009) made a clear call to the educational community in general, and to assessment specialists in particular, to find better ways to assess the content knowledge of emergent bilingual students or English learners (ELs). Herein, the terms *emergent bilingual students* and

Corresponding author: A. A. Lopez, E-mail: alopez@ets.org

ELs are used interchangeably to refer to students who are in the process of acquiring English in addition to their home language(s).

However, it is worth noting that little research has been conducted in the context of applying translanguaging to assessments—only two studies could be found (Dendrinos, 2013; Lopez, Guzman-Orth, & Turkan, 2014). Dendrinos (2013) reported on the case of the national foreign language exams in Greece (known as the State Certificate of Language Proficiency). The State Certificate of Language Proficiency assesses knowledge in six different languages based on the Common European Framework of Reference for Languages. What is unique about the State Certificate of Language Proficiency is that test takers use Greek to demonstrate specific competence in another language. For example, test takers read a text in Greek and write a summary in the target language. The practice of extracting information from a text in one language and relaying it in a different language or code is referred to as *interlinguistic mediation*, a form of translanguaging (Dendrinos, 2013).

Another study examined how emergent bilingual students interacted with mathematics items using translanguaging, which involves learners alternating between two languages, English and Spanish (Lopez et al., 2014). It was found that translanguaging allowed emergent bilingual students to use all the available resources in their linguistic repertoire to answer the questions and to demonstrate whether they had the math content knowledge specified in academic standards, even as their English was still developing (Lopez et al., 2014). The findings in this study suggest that the use of translanguaging has the potential to develop content assessments that build on the complex language practices of bilingual students and that translanguaging may provide a way for emergent bilinguals to demonstrate their content knowledge and skills in initial content assessments.

Support for applying heteroglossic approaches to testing settings also comes from Shohamy's (2011) illustrations on how the assessment of immigrant students' academic performances on tests administered only in Hebrew is biased. Shohamy showed how a test taker using both English and Hebrew benefits from being able to substitute Hebrew words for ideas that he or she could not express in English. Similarly, she exemplifies how the test takers benefit by answering mathematics questions using Russian and Hebrew. These examples highlight the importance of developing assessments that allow multilingual speakers to demonstrate their knowledge by using their multiple languages and that accept and encourage the "mixing" of languages. Shohamy (2011) explained that bilingual assessments can be placed on a continuum. On one end of the continuum, test takers can use multiple languages in the same assessment, but only responses in the target language are scored. On the other end, all languages are viewed as part of an integrated system, and test takers can use any language and even mix them (García, 2009).

With that backdrop, and based on the premise that bilingual students will benefit from using translanguaging, we argue that current initial content assessments should embrace the fluid and dynamic bilingual practices present in today's classrooms and view languages as a unified system dynamically interacting in the minds of bilingual and multilingual students. Initial content assessments that are conceived in this light could, we contend, allow late-arriving emergent bilingual students to utilize their entire linguistic repertoires by interchangeably moving back and forth from one language to another. If late-arriving emergent bilinguals are not permitted to draw on their diverse linguistic repertoires, they may be unfairly disadvantaged. Allowing late-arriving emergent bilinguals to draw on their entire linguistic repertoires will enable them to meaningfully demonstrate their content knowledge and skills during their test-taking experience.

In this report, we provide a theoretical framework to support the use of translanguaging to assess the academic content knowledge of newly arrived emergent bilingual students. We propose a new way to address the heteroglossic nature of bilingualism by assessing the content knowledge of late-arriving emergent bilingual students, particularly of recent immigrants to the United States who have low English-language proficiency. We believe that the use of translanguaging bears the potential to create an assessment framework for late-arriving emergent bilingual students in the sense that it integrates both dimensions of content knowledge and language proficiency. We particularly envision translanguaging to serve a special subgroup of ELs who are late arrivals to US schools—that is, arriving after fifth grade—yet might have had content instruction in their home countries. After fifth grade, when students transition to middle school, they begin to encounter major changes in instructional materials and approaches, work expectations, school structure, and general level of difficulty in content area classes. In this report, we suggest that translanguaging can be implemented in initial content assessments to allow teachers and schools to determine what incoming students know and to better inform instructional practices.

Current Educational Climate

The percentage of EL students in US public schools has increased in the past 15 years (Samson & Collins, 2012). In school year 2012–2013, the reported number of ELs enrolled in public schools was 4.4 million, representing 9.2% of the total K–12 student population (U.S. Department of Education, National Center for Education Statistics, 2015). In addition to the increasing number of ELs, the national achievement gap has widened between ELs and non-ELs in content areas such as mathematics and science at higher grades. In science, for example, 2005 National Assessment of Educational Progress (NAEP) results showed that 14% of eighth-grade ELs scored at or above basic proficiency versus 61% of non-ELs. By 2009, NAEP science results showed that 14% of eighth-grade ELs scored at or above basic proficiency versus 66% of non-ELs.

The No Child Left Behind Act of 2001 (2002) placed a strong emphasis on the inclusion of all students in statewide assessments for accountability purposes. It claimed that doing so is essential to ensure that each student has an equal opportunity to achieve the academic standards. Now, with higher and more rigorous expectations for all students in the next-generation standards — standards focusing on preparing students for college and careers, for example, the Common Core State Standards (CCSS) — and assessments, it is critical to find better ways to determine what late-arriving emergent bilingual students know and can do to help them meet these expectations. The CCSS were developed in 2010 as a response to the disparate education standards across the United States. They are intended to help all students receive a high-quality education by adhering to widely adopted rigorous standards and minimizing common barriers to educational progress, such as frequent mobility across districts or states. The CCSS are also intended to prepare students for success in college and in the workplace. The standards focus on core conceptual understandings and procedures starting in the early grades, thus enabling teachers to take the time needed to properly teach core concepts and procedures as well as give students the opportunity to master them.

Another important factor to consider when assessing the content knowledge of ELs is the language used to complete the assessment. When testing ELs, Solano-Flores (2008) shifted our views toward the assessment systems and centrality of language as a dynamic variable to consider when making score interpretations. His question "Who is given tests in what language by whom, when, and where?" particularly acknowledged the fact that being bilingual is not a matter of adding a language to one's profile. It is rather a condition of being able to use two languages with varying degrees of proficiency and also being able to manipulate and adjust communication, depending on "the topic of conversation, interlocutor, the situation in which communication takes place, the emotions or affects expressed, and many more factors" (Solano-Flores, Backhoff, & Contreras-Niño, 2009, p. 38). Due to the unique role language plays as a mediator between an assessment system and emergent bilinguals, questions such as "Who is given tests in what language?" become especially critical to address. Hence, we conjecture that translanguaging could offer late-arriving emergent bilinguals the opportunity to demonstrate what they know and can do, even if their English-language skills are not fully developed.

Translanguaging

Initially, translanguaging was viewed as an approach to bilingualism where individuals alternate between language modes (Baker, 2001). The concept of translanguaging has evolved over the years and now refers to how bilinguals flexibly use their entire linguistic repertoires (Canagarajah, 2011a; García, 2009; Wei, 2011). Translanguaging goes beyond traditional notions of bilingualism, and its strong proposition of second-language teaching and learning as its driving force is built on a heteroglossic conception of bilingualism, the term referring to the ability to flexibly operate between languages available to students (García, 2009). *Heteroglossia* refers to being and operating in a variety of social discourses situated in a diversity of social languages in a community (Lemke, 1998). Based on the heteroglossic conception of bilingualism, teachers can use translanguaging in education to promote a deeper understanding of the subject matter and to help students improve their written and oral communication skills in all languages by allowing dynamic shifts from one language to the other for educational purposes (García, 2009). The languages of bilinguals include not only the standard varieties but also the vernacular varieties (Sayer, 2013) — all their languages — as part of an integrated language system (Canagarajah, 2011b; García, 2009). To communicate effectively, a bilingual selects features strategically from his or her integrated language system depending on the communicative need, the context, and the speakers (Canagarajah, 2011b).

A heteroglossic conception of bilingualism allows flexibility as a bilingual. However, it can be argued that bilingual students have different patterns of language development when compared to monolinguals, and bilinguals are not simply the sum of two monolinguals (Baker, 2001; Grosjean, 1989). In this view, languages are interlaced rather than separated

or detached (García, 2009). Hence, the heteroglossic view supports the stance that views bilinguals as operating within a unified system of languages (Shohamy, 2011).

Conceptualizing the Use of Translanguaging in Initial Content Assessments

As previously discussed, translanguaging can be conceived as an opportunity to allow bilingual students to draw on new and complex language practices within an assessment context (García, 2009). It is a flexible way to assess late-arriving emergent bilingual students, and it gives them the opportunity to use complex and fluid discursive practices to demonstrate their content knowledge and skills. The idea is not to separate languages, as has been done in the past, but to develop linguistically adaptive bilingual practices within an assessment context.

To incorporate translanguaging into assessment, we propose a framework that encompasses two principles. The first principle provides opportunities for bilinguals to draw on all their resources in their linguistic repertoires. The second principle provides opportunities for student-to-student or student-to-teacher interactions to create a space for interactive moments of translanguaging in the assessment or classroom context. This way, it is predicted that the assessment items could potentially become more accessible to the test taker. The following section elaborates on the two principles for incorporating translanguaging into initial content assessments for late-arriving emergent bilinguals.

Principle 1: Draw on Students' Entire Linguistic Repertoires

As stated earlier, assessments that use translanguaging are designed from the viewpoint that bilingualism is a resource (Hornberger & Link, 2012), and it gives bilingual students an opportunity to utilize their entire linguistic repertoires to demonstrate their knowledge and skills in a content area. Translanguaging is rooted in the principle that language practices are dynamic and fluid and assumes that bilingual speakers have one integrated language system from which they strategically select features to communicate effectively (Canagarajah, 2011b; García, 2009). Thus, translanguaging allows students to perform bilingually by moving back and forth between a second language and their home language in different modalities (oral and spoken language). The use of translanguaging in content assessments creates meaningful assessment opportunities that assess the students' abilities to perform in a second language, their home language, or a combination of both.

Using translanguaging for assessment purposes allows bilingual students to draw on new and complex language practices (García, 2009). In this assessment approach, students use any language they wish to demonstrate their knowledge and skills in a content area. Thus, translanguaging provides a flexible way to assess newly arrived bilingual students, and it gives them the opportunity to use complex and fluid discursive practices in content assessments to demonstrate what they know and can do. Accordingly, the goal of translanguaging in an assessment context is to allow test takers to flexibly draw on their entire linguistic repertoires to demonstrate their knowledge and skills in a content area. To allow newly arrived bilingual students an opportunity to demonstrate their knowledge in an initial content assessment, we argue that test takers should be provided with multiple translanguaging resources to allow them to use these practices whenever needed.

Principle 2: Engage Students in Interaction Through Translanguaging

In addition to the principle described earlier, translanguaging in content assessments also attempts to develop a safe translanguaging space for emergent bilingual students to utilize all their bilingual resources and discursive practices within an assessment context. That is, translanguaging in content assessments provides opportunities for student-to-teacher or peer-to-peer interactions to create a space for interactive moments of translanguaging. The role of the test administrator (e.g., a teacher) in assessment contexts that incorporate translanguaging is of a mediator, in the sense that, together with the emergent bilingual student, the test administrator will work to negotiate and create meaning. We borrow the definition of mediation as a set of practices that help build connections between students' knowledge in the home and the second language (Kohler, 2015).

The interaction between the test administrator and the emergent bilingual student reflects the complex translanguaging practices that are common among today's bilingual learners. Translanguaging between the test administrator and the emergent bilingual student allows for the language in assessment to be flexible and mediates the understanding of the
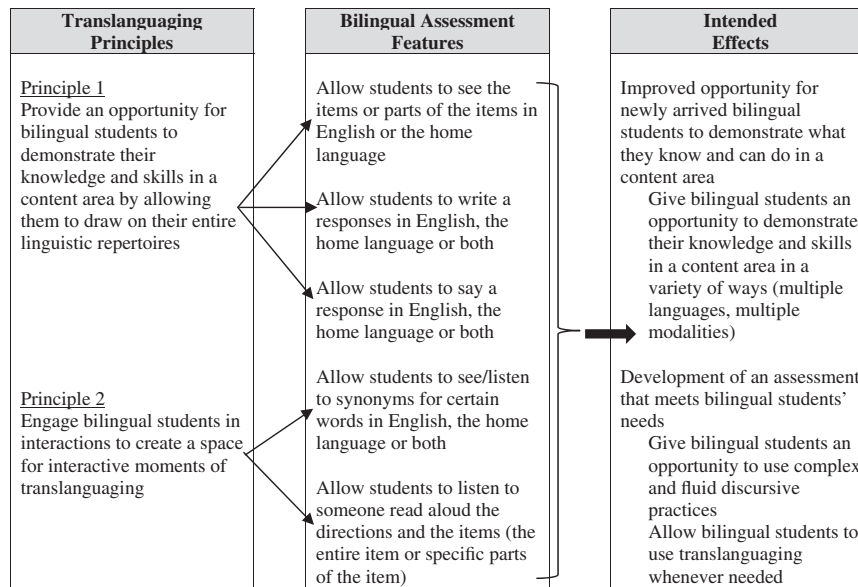
Translanguaging Principles	Bilingual Assessment Features	Intended Effects
Principle 1 Provide an opportunity for bilingual students to demonstrate their knowledge and skills in a content area by allowing them to draw on their entire linguistic repertoires	Allow students to see the items or parts of the items in English or the home language Allow students to write a responses in English, the home language or both Allow students to say a response in English, the home language or both	Improved opportunity for newly arrived bilingual students to demonstrate what they know and can do in a content area Give bilingual students an opportunity to demonstrate their knowledge and skills in a content area in a variety of ways (multiple languages, multiple modalities)
Principle 2 Engage bilingual students in interactions to create a space for interactive moments of translanguaging	Allow students to see/listen to synonyms for certain words in English, the home language or both Allow students to listen to someone read aloud the directions and the items (the entire item or specific parts of the item)	Development of an assessment that meets bilingual students' needs Give bilingual students an opportunity to use complex and fluid discursive practices Allow bilingual students to use translanguaging whenever needed

Figure 1 Theory of action for allowing the use translanguaging in initial content assessments.

language and completion of the task through the use of the most accessible language in the student's repertoire (Kohler, 2015). Through mediation, the test administrator enables the emergent bilingual student to navigate through all his or her linguistic resources and to negotiate the relationship between all the languages in the student's repertoire. Because many schools or classrooms have language practices that do not allow bilingual students to use their entire linguistic repertoires (Canagarajah, 2011b; DeNicolo, 2010; García, 2009), the test administrator should encourage emergent bilingual students to use all their languages, including mixing them if needed, to demonstrate their knowledge in a content area. Although the test administrator and the student work together to negotiate language differences in multiple languages, this negotiation is not confined to the use of languages. In fact, the negotiation of meaning is also multimodal (Kress, 2003). This means that the test administrator and the student use a wide range of modes (e.g., written language, oral language, and visual or numeric representations) and mix modes whenever needed.

Theory of Action

In conceptualizing how to incorporate the use of translanguaging into initial content assessments for newly arrived emergent bilingual students, it is important to envision how the translanguaging principles and bilingual assessment features work together to provide emergent bilingual students an opportunity to demonstrate their knowledge and skills in a content area. Figure 1 summarizes the theory of action, showing how the translanguaging principles and the bilingual assessment resources interact to give newly arrived bilingual students a flexible assessment to demonstrate their knowledge in a content area in a variety of ways. A theory of action could potentially be used as part of the validity argument of an assessment system as it describes its components and its intended uses and effects (Bennett, 2010).

Figure 1 illustrates the theory of action and underlying premises for our conceptualization of translanguaging in initial content assessments for newly arrived emergent bilinguals. Following our guiding principles, the arrows show the direct connection to each of the proposed bilingual assessment resources. The bilingual assessment resources are directly linked to the perceived outcomes that can be garnered from the use of assessments that allow the use of translanguaging embedded into the system. Overall, the synergy between the bilingual assessment resources and the intended effects functions to support emergent bilinguals to demonstrate what they know and can do, as well as supporting their teachers to know and understand incoming students' skills and areas for improvement.

Considerations for Application

Opportunities to allow test takers to access their home languages as a resource are fundamentally different than assessment accommodations. This difference is based on the very nature of how opportunities are designed in the assessment and how

student performance is interpreted. Rather than focusing on students as novices or having poor content or language skills, translanguaging is a more social perspective that sees inherent value in all skills students bring into the assessment arena. The following section elaborates on test design applications and considerations for the two guiding principles.

Universal Design

In our assessment framework, translanguaging can be regarded as employing universally designed (UD) principles. UD assessments (Thompson, Johnstone, & Thurlow, 2002) include seven guiding principles with applications to maximize assessment accessibility for target test takers. The seven principles are (a) inclusive assessment population; (b) precisely defined constructs; (c) accessible, nonbiased items; (d) linguistic accommodations; (e) simple, clear, and intuitive instructions and procedures; (f) maximum readability and comprehensibility; (g) and maximum legibility (Thompson et al., 2002). Although the concept of UD for instruction and assessments is popular for maximizing accessibility, features such as the use of plain English is a common application of UD in assessment for emergent bilinguals. It is critical to note, however, that even modifying the linguistic demand by using plain English may still pose some linguistic difficulties for emergent bilinguals who are still learning the English language, including literacy skills. Additionally, there is the question of how the field should appropriately assign linguistic accommodations for test-taking purposes because not all linguistic accommodations are equally helpful to each emergent bilingual. In other words, linguistic accommodations are not a one-size-fits-all solution to promote accessibility for emergent bilinguals.

Even though UD does not suggest that there is one solution to address all accessibility issues, we propose that translanguaging in assessment is one approach to resolve such issues for late-arriving emergent bilinguals because it serves subgroups of ELs with varying levels of home-language and English-language proficiency, characteristics that can impact the validity and utility of specific linguistic accommodation assignments. In this light, translanguaging can be considered a natural application of UD, making assessment items maximally comprehensible and accessible to emergent bilinguals taking initial assessments in a content area as their teachers will likely have little to no information as to what linguistic accommodation could be appropriate for emergent bilinguals who are late arrivals. Incorporating translanguaging as a UD feature for initial assessments to measure content knowledge and skills for emergent bilinguals who are late arrivals provides an opportunity for students who may otherwise be excluded from showing what they know and are able to do in a particular content area.

Mode of Delivery

Computer-Based Initial Assessments

One promising way to successfully implement translanguaging in assessment is through a computer-based platform. There are recent innovations in computer-based testing (CBT) that promote translanguaging in a way that paper and pencil cannot. CBT allows students to access the items/tasks in English or the home language and to read or listen to the directions and questions in either language. Similarly, CBT advantages of speech or data capture allow students to write or say a response in English, the home language, or a combination of both without having to schedule proctors to capture the students' responses live. Designing bilingual assessment features within a computer-based assessment has a critical advantage due to its potential for elegant interface design. CBT allows for the creation of context-enriched and innovative tasks that are designed to increase students' engagement and interest in the assessment tasks and thus may elicit more meaningful and relevant evidence of the students' knowledge and skills. Technology is not only beneficial for the test delivery component; it also facilitates test administration, scoring, and reporting.

In Figure 2, we can see a sample computer-based mathematics item with several bilingual assessment resources. These resources allow students to translanguage whenever needed. Five bilingual assessment resources are highlighted in Figure 2: (a) language tabs, (b) write response, (c) say response, (d) see synonyms, and (e) listen to question. Although these resources are always available, and test takers can use these resources at any time, test takers are not required to use any of these resources.

In the item shown in Figure 2, test takers can click on any of the two language tabs (Bilingual Assessment Resource 1) to see the item in English or Spanish; test takers can toggle back and forth between language tabs at any time. More language tabs (e.g., German, French, Tagalog, Punjabi) could be added to the platform if needed. For constructed-response items,

Figure 2 Sample bilingual assessment resources.

test takers are allowed to write their responses in either language or a combination of both in any of the language tabs (Bilingual Assessment Resource 2). Alternatively, test takers can also say the response in either language or a combination of both (Bilingual Assessment Resource 3). They can do this by clicking on the microphone tab; each response is recorded separately. A few nonconstruct-related words are highlighted in the English or Spanish tab. If the test taker clicks on the highlighted words, he or she will see synonyms for these words to account for dialect variation (Bilingual Assessment Feature 4). Finally, test takers can listen to someone read aloud the directions and the questions by clicking on the avatar (Bilingual Assessment Resource 5). The read alouds are in English or in Spanish depending on the language tab the test takers select. The same bilingual assessment resources are present in all the language tabs.

Other bilingual resources can be added to a computer-based assessment. For example, instead of seeing a translation of the entire item, students can see the translation of specific parts of the problem (e.g., a word, phrase, or sentence). Similarly, instead of listening to the entire item, students can listen to a word, phrase, or sentence. Also, to help students understand the meaning of unknown words, visual representations of those words can be provided as well.

Creating meaning through the act of translanguaging requires a peer, teacher, or—in the case of CBT administration—a "helper" or virtual friend embedded in the test interface. This embedded feature simulates peer-to-peer interactions, thus creating a space for interactive translanguaging moments by allowing the test taker to use all of his or her linguistic resources via an authentic context. Translanguaging between the virtual friend and the student allows for language flexibility in assessment and becomes a systematic way to mediate understanding and completion of the task.

There are a few approaches to designing an interface for test administration that allows for translanguaging to occur during test administration. More traditional approaches to assessment design, including the design of interfaces, consider factors such as screen size (i.e., real estate) for translation purposes and tool bars to allow access for bilingual features (e.g., read aloud, translation window). Additionally, innovative accessibility features are oftentimes built into existing platforms and provide a mechanism (e.g., OS X) to produce bilingual assessment features (e.g., screen reader). Along these lines, accessible portable item protocol (APIP) tagging is a newer electronic method of providing bilingual features in a computer-based assessment. APIP identifies item-level content that should be authored, packaged, and delivered in a standard format to allow for individualized accommodations tailored to each user. In keeping with the perspective that translanguaging is a natural occurrence and not necessarily an accommodation, APIP provides students with opportunities to use translanguaging in an assessment. Although APIP innovations in CBT have been applied mostly in the realm

of accommodations (or designated supports, depending on the testing program), we argue that APIP could provide for individualized accessibility features (not just accommodations) because it is a method that affords flexible support based on each test taker and assessment construct.

Although translanguaging can be implemented using computer-based assessment, there are some limitations to this type of assessment administration. For example, it would be cumbersome to add so many features to allow for the translanguaging support to be individualized to each test taker depending on his or her communicative needs, for instance, if a student only needs to listen to a single word read aloud instead of listening to the entire problem or if the student needs to see the translation of a particular phrase instead of seeing the translation for the entire problem.

Teacher-Mediated Initial Classroom Assessments

Another possibility for delivery of assessments that allow the use of translanguaging is teacher-mediated initial classroom assessment. In this type of assessment, the test taker self-navigates through a test booklet and records responses in the booklet or on a separate sheet of paper. The test booklet could include the items or tasks only in English, or it could provide them in both English and the home language (i.e., bilingual booklet). In this fashion, the booklet contains a standardized format of the assessment for all students in the classroom, whether the assessment task is for a formative, diagnostic, or summative purpose. In teacher-mediated initial classroom assessments, the use of translanguaging requires interaction between the test taker and a test administrator (e.g., a teacher or any other school or district personnel). Furthermore, any accommodations for emergent bilingual students are delivered separately along with the assessment. Similar to the computer-based format, the teacher-mediated format can allow for language-based accommodations for emergent bilinguals as added on, or completely separate, testing materials. One advantage to this format is that this form of administration allows for translanguaging support to be individualized to each test taker, which makes the interaction authentic because it is contingent upon the needs of the individual test taker.

The test administrator should always encourage and allow students to use all their languages as a resource to demonstrate their knowledge (e.g., English or the home language) and, if necessary, to "mix" the languages. This means that the students' responses will be scored regardless of the language they use. The role of the test administrator is to help students support or enhance understanding of the content items or tasks in English or the home language. Depending on the students' needs, the test administrator can read aloud the directions and the questions or parts of the questions to the student in English or in the home language. The test administrator can also provide translations at different levels (e.g., at the word, phrase, or sentence level) depending on what the student is having difficulties with. Equally important in teacher-mediated assessments is for the test administrator to allow the test takers to use a wide range of modes (e.g., written language, oral language, nonverbal language, and visual representations) to help them understand and communicate information, including responses to items or tasks.

Although translanguaging can also be implemented in teacher-mediated initial classroom assessments, there are significant drawbacks to this type of assessment administration, for example, the time-consuming scheduling demands to conduct a one-on-one assessment; the large amounts of materials needed to produce resources in multiple languages at the word, phrase, or sentence level; and dialect variation.

Challenges

Considering that translanguaging is a common discourse practice of bilinguals, we firmly believe that the use of translanguaging for assessment purposes provides a way to assess the content knowledge and skills of late-arriving bilingual students, especially of emergent bilingual students. We recognize, however, that there are challenges when allowing students to use their entire linguistic repertoires within an assessment context.

One challenge stems from the fact that the use of translanguaging forces educators to challenge traditional monoglossic perspectives of bilingual education, which view the students' languages as autonomous systems. To incorporate translanguaging to assess the content knowledge of late-arriving bilingual students, a shift to a heteroglossic view of bilingual education is required that emphasizes hybrid language practices in the classroom and focuses on students' multiple discursive practices. This shift would also force teachers and assessment specialists to develop and use flexible bilingual

assessments that adhere to the view that bilingualism is dynamic, not simply additive. Thus, to successfully utilize translanguaging for assessment purposes, being bilingual or multilingual needs to be viewed as a resource, not as a problem or barrier to avoid or overcome (Hornberger & Link, 2012).

One of the biggest challenges when incorporating translanguaging in assessment contexts is that it requires teachers to be bilingual (or multilingual) themselves. Even if teachers share the same home language as their students, they need to be biliterate with regard to the subject area they are teaching. To complicate matters further, teachers will also be challenged when there are many home languages, either standard or vernacular varieties, represented in their classrooms. Ideally, translanguaging should be available for more than one language to accommodate all potential emergent bilinguals who come to the United States. The ideal poses an impossible challenge given how many home languages are represented in some public schools in the United States.

Also, in teacher-mediated initial classroom assessments, special considerations should be taken to ensure that all the possible translanguaging resources that could be implemented are standardized, so there is no variation in the assessment procedure across students. This requires that teachers translate the questions into the student's home language ahead of time. It is preferable to have scripted translations instead of on-the-spot translations to avoid translation inaccuracies that could potentially change the constructs (e.g., the skills) that are being measured or change the difficulty level of the questions (Bowles & Stansfield, 2008). Because there are variations in the Spanish language, teachers should also prepare lists of Spanish words that have different meanings in various Spanish regions, including the Spanish that is spoken in the United States.

Another related challenge is that in the context of assessing late-arriving emergent bilingual students, the languages in which the bilingual assessment features are designed can impact the students' performance depending on their first- and second-language literacy skills (Solano-Flores et al., 2009). For instance, the level of proficiency that emergent bilingual students have in the English language greatly determines how they access the test content and interact with it. Likewise, if the test is presented in the home language of the students, the literacy skills of the students and the teachers who are administering the assessments will mediate how students access and interact with the test content.

Another challenge is related to the fact that most current initial content assessments administered within schools assume a monoglossic perspective in that they assume all students are monolingual. When operating within this assumption, all the linguistic resources that bilinguals or multilinguals bring are perceived to be nonmainstream, and therefore, it is perceived that they should be disallowed during testing. It is challenging to change this widely recognized view, but teachers can start this paradigm shift by promoting the use of the students' entire linguistic repertoires and bilingual communicative practices. At this moment, we believe that translanguaging will likely be more useful than traditional content assessment for low-stakes, classroom-based assessments that inform teachers of students' skills and needs. In the future, however, translanguaging might be expanded to large-scale tests that assist in making high-stakes decisions. Implementing translanguaging in assessments that influence high-stakes decisions designed for accountability purposes requires score users to operate from a similar social justice perspective as the test developers, test administrators, and test takers. This perspective views translanguaging as a normal act to allow students opportunities to show what they know and are able to do. However, several other policy- and operational-focused challenges remain.

In the era of the new college and career readiness standard-based assessments and multistate consortia, linguistic accommodations designed to support students who are learning English have been the source of many conversations regarding type, policies, and procedures for linguistic accommodations on a content assessment. Currently, across the multistate consortia, a multitiered model of support features available to all students seems to be emerging, either via designation from a teacher or educational team or as stated in permissible students' individualized educational plans (IEPs) or 504 plans.[1]

In contrast to the multitiered model of allowing or not allowing translation (typically seen as a linguistic accommodation) in an assessment, translanguaging would always be available to the student. Hence translanguaging is part of UD and overall accessibility, so the locus of control falls on the students as they decide whether to engage with the bilingual assessment features, instead of the teacher or educational team determining what supports are necessary or appropriate for each student. This in turn creates another challenge in the sense that we need to understand how successful it is to give this control over to students. Will emergent bilinguals be able to effectively determine when they need to use English or their home languages?

It is possible that some state assessment policies may prohibit the use of any translation, including translanguaging, in content assessments. As such, the process of incorporating translanguaging in assessments for some states and not others may require additional empirical evidence to determine construct equivalence across test forms with and without translanguaging. In other words, would a differential boost in test score performance emerge for bilingual students taking the test with bilingual assessment features compared to bilingual students taking the test with traditional linguistic accommodations? To change the current policy context, it is critical to provide research evidence to support the claim that the use of translanguaging has a positive impact on the assessment of content knowledge of late-arriving emergent bilingual students.

Finally, because translanguaging allows test takers to say or write a response in English, the home language, or a combination of both, it is important to find a practical way to score these responses. One possible mechanism for scoring multimodal and multilingual responses is with human raters (e.g., teachers). However, human scoring becomes a challenge because it requires teacher or raters to be bilingual. This is a significant limitation in the sense that it will require schools to have or recruit content area teachers who are bilingual. Other human scoring challenges include (a) delivery of responses, (b) preferences/biases that individual raters might have for written or spoken responses, and (c) preferences/biases that individual raters might have for the use of English or the home language.

Another option is to develop automated scoring systems to score the responses. Nonetheless, special care must be taken to develop appropriate bilingual/bimodal automated scoring systems that can score multiple kinds of constructed-response items, including responses in different languages or a combination of languages; spoken and written responses; textual, numeric, and mathematical expressions; and graphical responses. This is currently the less practical solution in the sense that technical advances in natural language processing systems will be required to be able to deal with the demands of complex constructed-response tasks while also moving between multiple languages and modes.

Summary and Discussion

In the United States, today's emergent bilingual students have the dual demanding task of learning the English language and challenging curricula in the content areas. This reality forces educators to challenge traditional monoglossic perspectives of bilingual education, which view the students' languages as autonomous systems. Rather, educators face the need to shift to a heteroglossic view of bilingual education, which emphasizes hybrid language practices in the classroom and focuses on students' multiple discursive practices. This shift will force assessment specialists to develop flexible bilingual assessments that adhere to the view that bilingualism is dynamic, not simply additive.

We theorized that all late-arriving bilingual students will benefit from using their entire linguistic repertoires to demonstrate their knowledge and skills in a content area because these bilingual assessment features would validate their home language practices. However, emergent bilinguals who are still developing English as an additional language would benefit the most as these bilingual assessment features may give them a way demonstrate what they know and can do. The use of translanguaging could also help assess emergent bilingual students' knowledge and understanding of both language and academic content. Translanguaging allows late-arriving emergent bilingual students to demonstrate the knowledge they bring from home.

Flexible bilingual assessments would allow late-arriving emergent bilingual students to utilize their entire linguistic repertoires by interchangeably moving back and forth from one language to another, demonstrating their content knowledge and skills during the test-taking experience. This state of flexibility as a bilingual could be viewed as the heteroglossic conception of bilingualism. We contend that late-arriving emergent bilingual students are unfairly disadvantaged by the constraint set by the monolingual framework if they are not permitted to draw on their diverse linguistic repertoires.

The use of translanguaging in initial content assessment could also allow content teachers to better diagnose and understand what newly arrived emergent bilingual students know and can do. We believe that dynamic bilingual content assessments could assist teachers in identifying emergent bilingual students' strengths and weaknesses in content knowledge and in determining areas that are in need of additional instructional support. This information could better inform content teachers' instructional practices.

Finally, in terms of future research studies needed, we recommend focusing primarily on how to apply translanguaging in initial content assessments in different areas (e.g., mathematics, science), examining how late-arriving emergent bilinguals interact with all the different translanguaging principles, evaluating translanguaging's impact on process and

performance, and exploring different ways teachers can implement translanguaging in content assessments to guide teaching and learning. Equally important is conducting research on the validity and fairness of the use of translanguaging in initial mathematics and science assessments for late-arriving emergent bilinguals. To follow up, it is also critical to develop and validate practical ways to score the responses using translanguaging and to develop and validate reporting/feedback models for initial mathematics and science assessments using translanguaging.

Note

1 IEPs and 504 plans stem from federal legislation to protect students with disabilities (i.e., the Individuals With Disabilities Education Act of 2004 [IDEA] and Section 504 of the Rehabilitation Act of 1973).

References

Baker, C. (2001). *Foundations of bilingual education and bilingualism* (3rd ed.). Clevedon, England: Multilingual Matters.

Bennett, R. (2010). Cognitively based assessment of, for, and as learning (CBAL): A preliminary theory of action for summative and formative assessment. *Measurement: Interdisciplinary Research and Perspectives*, *8*(2–3), 70–91.

Bowles, M. S., & Stansfield, C. W. (2008). *Standards-based assessment in the native language: A practical guide to the issue*. Retrieved from http://www.edweek.org/media/maz-guide%20to%20native%20language%20assessment%20v15-blog.pdf

Canagarajah, S. (2011a). Translanguaging in the classroom: Emerging issues for research and pedagogy. *Applied Linguistic Review*, *2*, 1–28.

Canagarajah, S. (2011b). Codemeshing in academic writing: Identifying teachable strategies of translanguaging. *Modern Language Journal*, *95*, 401–417.

Cenoz, J., & Gorter, D. (2011). A holistic approach to multilingual education: Introduction. *Modern Language Journal*, *95*, 339–343.

Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *Modern Language Journal*, *94*, 103–115.

Dendrinos, B. (2013). Social meanings in global-glocal language proficiency exams. In D. Tsagari, S. Papadima-Sophocleous, & S. Loannou-Georgiou (Eds.), *International experience in language testing and assessment* (pp. 33–58). New York, NY: Peter Lang.

DeNicolo, C. P. (2010). What language counts in literature discussion? Exploring linguistic mediation in an English language arts classroom. *Bilingual Research Journal*, *33*, 220–240.

García, O. (2009). *Bilingual education in the 21st century: A global perspective*. Malden, MA: Wiley-Blackwell.

García, O. (with Makar, C., Starcevic, M., & Terry, A.). (2011). The translanguaging of Latino kindergarteners. In J. Rothman & K. Potowski (Eds.), *Bilingual youth: Spanish in English-speaking societies* (pp. 33–55). Amsterdam, Netherlands: John Benjamins.

García, O., & Leiva, C. (2014). Theorizing and enacting translanguaging for social justice. In A. Blackledge & A. Creese (Eds.), *Educational linguistics series: Vol. 20. Heteroglossia as practice and pedagogy* (pp. 199–216). Dordrecht, Netherlands: Springer.

García, O., & Torres-Guevara, R. (2010). Monoglossic ideologies and language policies in the education of U.S. Latinas/os. In E. Murillo, S. Villenas, R. Trinidad Galván, J. Sánchez Muñoz, C. Martínez, & M. Machado-Casas (Eds.), *Handbook of Latinos and education: Research, theory, and practice* (pp. 182–194). Mahwah, NJ: Lawrence Erlbaum.

Gort, M. (2015). Transforming literacy learning and teaching through translanguaging and other typical practices associated with "doing being bilingual." *International Multilingual Research Journal*, *9*, 1–6.

Grosjean, F. (1989). Neurolinguists, beware! The bilingual is not two monolinguals in one person. *Brain and Language*, *36*, 3–15.

Hornberger, N., & Link, H. (2012). Translanguaging and transnational literacies in multilingual classrooms: A bilingual lens. *International Journal of Bilingual Education and Bilingualism*, *15*, 261–278.

Kohler, M. (2015). *Teachers as mediators in the foreign language*. Bristol, England: Multilingual Matters.

Kress, G. (2003). *Literacy in the new media age*. London, England: Routledge.

Lemke, J. (1998). Multiplying meaning: Visual and verbal semiotics in scientific text. In J. R. Martin & J. Veelm (Eds.), *Reading science: Critical and functional perspectives on discourses of science* (pp. 87–113). London, England: Routledge.

Lopez, A. A., Guzman-Orth, D., & Turkan, S. (2014, March). *A study on the use of translanguaging to assess the content knowledge of emergent bilingual students.* Paper presented at the annual meeting of the AAAL Annual Conference, Portland, OR.

Lopez, A. A., Guzman-Orth, D. A., & Turkan, S. (2015). How might a translanguaging approach in assessment make tests more valid and fair for emergent bilinguals? In G. Valdés, K. Menken, & M. Castro (Eds.), *The Common Core and English language learners/emergent bilinguals: A guide for all educators* (pp. 266–267). Philadelphia, PA: Caslon.

Martin-Beltrán, M. (2014). "What do you want to say?" How adolescents use translanguaging to expand learning opportunities. *International Multilingual Research Journal*, *8*, 208–230.

No Child Left Behind Act of 2001. (2002). Pub. L. No. 107-110, 115 Stat. 1425.

Palmer, D. K., Martínez, R. A., Mateus, S. G., & Henderson, K. (2014). Reframing the debate on language separation: Toward a vision for translanguaging pedagogies in dual language classroom. *Modern Language Journal*, *98*, 757–772.

Samson, J. F., & Collins, B. A. (2012). *Preparing all teachers to meet the needs of English language learners: Applying research to policy and practice for teacher effectiveness*. Washington, DC: Center for American Progress.

Sanchez, S. V., Rodriguez, B. J., Soto-Huerta, M. E., Castro Villareal, F., Guerra, N. S., & Bustos Flores, B. (2013). A case for multidimensional bilingual assessment. *Language Assessment Quarterly*, *10*, 160–177.

Sayer, P. (2013). Translanguaging, TexMex, and bilingual pedagogy: Emergent bilinguals learning through the vernacular. *TESOL Quarterly*, *47*(1), 63–88.

Shohamy, E. (2011). Assessing multilingual competencies: Adopting construct valid assessment policies. *Modern Language Journal*, *95*, 418–429.

Solano-Flores, G. (2008). Who is given tests in what language by whom, when, and where? The need for probabilistic views of language in the testing of English language learners. *Educational Researcher*, *37*, 189–199.

Solano-Flores, G., Backhoff, E., & Contreras-Niño, L. A. (2009). Theory of test translation error. *International Journal of Testing*, *9*(2), 78–91.

Thompson, S. J., Johnstone, C. J., & Thurlow, M. L. (2002). *Universal design applied to large scale assessments* (Synthesis Report No. 44). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved from http://education.umn.edu/NCEO/OnlinePubs/Synthesis44.html

U.S. Department of Education, National Center for Education Statistics. (2015). *The condition of education 2015* (NCES Report No. 2015–144). https://nces.ed.gov/programs/coe/indicator_cgf.asp

Velasco, P., & García, O. (2014) Translanguaging and the writing of bilingual learners. *Bilingual Research Journal*, *37*(1), 6–23.

Wei, L. (2011). Moment analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics*, *43*, 1222–1235.