MEETING THE EDUCATIONAL NEEDS OF ADOLESCENT NEWCOMERS IN U.S. SCHOOLS: A NEW ASSESSMENT DESIGN

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This paper focuses on the educational needs of adolescent newcomers, a special population of English language learner (ELL) students who arrive in the United States and enter the school system in middle or high school. We outline the particular challenges adolescent newcomers face in U.S. schools and propose a new assessment system to meet their educational needs. Adolescent newcomers have diverse educational backgrounds and bring a large range of academic knowledge with them to U.S. schools. Currently, there is no assessment system that measures the students' academic knowledge upon entry to schools in the United States or that tracks the progress of the students. This information is critical for educators of adolescent newcomers in order to provide the students with appropriate instruction. We outline what an ideal battery of assessments for these students would consist of and discuss some of the challenges involved in implementing such assessments.

Keywords: adolescents, assessment, newcomers

Adolescent newcomers, a subgroup of English language learners (ELLs), are newly arrived immigrants who enter the U.S. school system in the upper grades, typically in middle or high school. While there is no specific data on the number of adolescent newcomers in U.S. schools, data from the 2000 U.S. Census indicate that 7% of the total middle and high school student population are first-generation immigrants and that 2.7% have been in the United States for less than five years (Ruiz-de-Velasco & Fix, 2000). Schools enrolling significant numbers of adolescent newcomers are struggling to meet their academic needs (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006; Ruiz-de-Velasco & Fix, 2000; Short & Fitzsimmons, 2007). These students face remarkable difficulties upon entry to school in the United States, as they must develop English proficiency and content knowledge in a short amount of time and perform "double the work" of their peers (Short & Fitzsimmons, 2007).

Adolescent newcomers are a very diverse group, with a range of educational experiences in their many native languages. Some have age-appropriate academic knowledge due to consistent schooling in their home countries; on the other end of the spectrum are students who have missed years of schooling in their home countries before arriving in the United States (commonly known as Students with Interrupted Formal Education [SIFE]). SIFE pose an especially daunting challenge to educators because of their lack of academic content knowledge and low literacy levels in their native languages. Ruiz-de-Velasco and Fix

(2000) noted that under-schooled adolescent newcomers perform on average at least three years below their age-appropriate grade level. A study on the characteristics of Spanish-speaking SIFE in New York City high schools found that, on average, SIFE read at about a third-grade level in their native language and perform around the fourth-grade level in math. Notably, the SIFE in the study all had age-appropriate levels of Spanish syntax[1] and working memory;[2] because the students had typical native language development and age-appropriate working memory, their low levels of reading are likely due to lack of opportunity to learn rather than a learning disability (Garrison-Fletcher et al., 2008; Klein & Martohardjono, 2006). Freeman and Freeman (2002) noted that adolescent newcomers are often overage for their grade placement, have little or no literacy skills in English and/or their native language, and require teaching approaches and materials that will help them catch up to and compete with mainstream students.

No single instructional program will be appropriate for all adolescent newcomers, as they have such diverse academic backgrounds. Teachers need rich information about the knowledge and skills of the students to develop appropriate curricula. The range of skills adolescent newcomers bring with them to U.S. schools, however, is not systematically considered when designing the curriculum for them. A number of researchers have pointed to the lack of appropriate assessment data as the critical impediment to the development of appropriate and individualized curriculum for adolescent newcomers.

Both intake and diagnostic assessments are needed in order to provide adolescent newcomers with appropriate instruction. These assessments should involve students' native languages in order to capture the knowledge they have upon arrival in U.S. schools and to track their educational progress. Beyond informing general instructional practice with adolescent newcomers, the battery of assessments we propose could also potentially be used to identify ELL students with learning disabilities (particularly those related to language) earlier. Identifying ELL students with learning disabilities is a critical need that is not well served by existing tests (Shore & Sabatini, 2009). This identification process could be accomplished by triangulating the data collected about the student's formal education in his or her home country, English and native language proficiency, and native language literacy and content knowledge. Serious discrepancies between opportunity to learn one of these domains and level of accomplishment could indicate students whose academic progress needs to be carefully monitored.

This paper outlines what an ideal, professionally developed assessment battery for these students would consist of, and notes some of the challenges involved in designing such assessments. We propose and describe the following battery of assessments:

- Intake diagnostic assessments, measuring:
  - Native language academic language proficiency
  - Native language literacy
  - Native language content knowledge
  - English proficiency

- Benchmark assessments, measuring:
  - Native language and English literacy and content knowledge
  - English proficiency

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[1]Assessed using the RISLUS Syntax Test, which was developed by language acquisition experts and was used to measure typical language development in the referenced study.
[2]Assessed using Batería III Reverse Number Recall subtest.

Intake Diagnostic Assessments

Educators must know the level of education of adolescent newcomers in order to understand their academic needs. A diagnostic intake assessment for adolescent newcomers should identify the academic skills these students have developed in their native language, including academic language proficiency, literacy, and content knowledge. These tests would augment the initial assessment of ELL students' English proficiency upon entering the school system, which will continue to play an important role.

While language proficiency tests are more commonly used for measuring students' second language learning, measuring adolescent newcomers' *native* language proficiency will provide information about their educational experiences. Although it might seem obvious that a typically developing adolescent would be proficient in his or her native language, such proficiency may be limited to everyday language (formally referred to as basic interpersonal communication skills [BICS]; Cummins, 1979, 1981) and may not include cognitive academic language proficiency (CALP), which is required for success in complex, decontextualized classroom instruction (Cummins, 1979, 1981; Skutnabb-Kangas & Toukomaa, 1976). Freeman and Freeman (2002) note that this is especially likely for SIFE; an assessment of native language proficiency for adolescent newcomers should therefore focus on measuring CALP-related skills.

Another important piece of information to have about the native language skills of adolescent newcomers is their level of native language literacy. Because the levels of skills can vary considerably among these students, a diagnostic intake literacy assessment for adolescent newcomers would need to include both basic and text-level reading in order to determine their academic needs.

Assessment of content in the native language is also critically important for selecting an appropriate curriculum for adolescent newcomers. If students have an academic concept in their native language, then they need to know the English vocabulary items for that concept, but do not need to be retaught the concept. If students lack the concept, however, they need to be taught not only the English word for the concept, but the concept itself. Because adolescent newcomers have just arrived in the United States, an assessment in English of their content knowledge cannot capture what they have already learned in their native language. Therefore, students should be tested in their native language.

To get information on the skills all adolescent newcomers bring with them to U.S. schools, a diagnostic intake assessment must cover a range of skills across a range of grade levels. Because of the range of educational experience, the academic content knowledge of adolescent newcomers will vary considerably, due not only to the level of schooling the students have completed but also to the curriculum the students were exposed to in their home countries.

Benchmark Assessments

In addition to a diagnostic intake assessment for adolescent newcomers, periodic benchmark assessments to track the academic development of these students are also needed. Because of the lack of research on this population, almost nothing is known about their development of English proficiency and academic content once they are in U.S. schools. Benchmark assessments would allow teachers to gauge what the students are learning and what types of instruction seem to be most beneficial. The ideal battery of benchmark assessments would measure the development of English language proficiency as well as the learning of content knowledge, which should include tests of literacy.

The English proficiency tests should be aligned with the Title III assessments (which are typically administered only once a year) to provide additional information about students' progress toward academic English proficiency. Similarly, the content benchmark assessments should be developed alongside the Title I assessments. One important difference, however, is that the benchmark assessments will need to cover more content than a grade-level Title I assessment would due to the range of academic knowledge of adolescent newcomers.

A benchmark content assessment for tracking the academic progress of adolescent newcomers should allow the students to use both their native languages and English in demonstrating content knowledge. For benchmark assessments, the advice for intake assessments to develop exclusively native-language forms is no longer appropriate, particularly when students are instructed in English (Menken, 2008). As emerging bilinguals, adolescent newcomers will have strengths and weaknesses in both of their languages, and forcing the use of only one language will not capture all the knowledge a bilingual student possesses. Separating the students' two languages is not an authentic form of assessment for these students. Future research is needed to explore how the mixing of languages affects the use of rubrics or scoring guides for these assessments (e.g., Lakin & Garrison-Fletcher, 2014, found that language mixing did not seriously affect the scoring of a science assessment).

The benchmark assessments must allow the students to engage meaningfully with the test material, and test accommodations for ELL students have been designed for this purpose. Existing assessment accommodations for bilingual students, however, are not designed to address the particular needs of adolescent newcomers, and few have been shown to have much effect on ELL students' test performance (Kieffer, Lesaux, Rivera, & Francis, 2009; Kopriva, Emick, Hipolito-Delgado, & Cameron, 2007; Pennock-Roman & Rivera, 2011). The one bilingual test accommodation that draws fully on both languages and shows promise as a valuable accommodation is the use of dual-language booklets, in which the student is given a test booklet with one page in English facing another page with the same test questions in the native language. Dual-language booklets are most useful when students are highly literate in at least one of the languages involved (Kopriva, 2008; Pennock-Roman & Rivera, 2011), and are preferred by students over either a native- or English-only test (Duncan et al., 2005). The utility of dual-language test forms is less certain before students have achieved a critical level of literacy in either language, an important point to consider for adolescent newcomers.

Challenges in Developing Assessments for Adolescent Newcomers

There are significant challenges and issues related to the development of appropriate assessments for adolescent newcomers. First is the large number of languages in which the assessments would be needed. Although it makes sense to begin this process with Spanish language tests[3] (as 72% of all ELL students in secondary schools speak Spanish as their native language), assessments would ideally be developed in the languages of all adolescent newcomers. Although this is not a likely accomplishment (currently, many school systems provide native language services in only a subset of languages), it is the ideal situation. But even developing these critical assessments for a subset of the most common languages spoken by adolescent newcomers would be a dramatic improvement from the current assessment practices.

There are two options in developing the many different native language forms that will be needed. One option is to develop forms from the same test specifications, but without requiring that each item be exactly the same for each test form. This is how the Standards-based Test in Spanish (STS) (http://www.startest.org/sts.html) is developed—with Spanish-based item development proceeding from the same standards as are used for the California Standards Tests (CSTs) in English. This is a strength of the STS; it is not a translated test, but a Spanish language test that was fully developed in Spanish. The limitation is that, although the CSTs and STS tests are similar in their content, they are not psychometrically comparable (e.g., providing equated or linked scores).

Another approach, one of the most common methods used by test developers in the United States, is to develop a test in English and then translate it into the other languages. There are many problems associated with translating a test (or, more accurately, transadapting a test) from one language to another. One major problem is that the constructs may not be equivalent in the two languages, and "the

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[3]Note that even the development of an assessment in one language (for example, Spanish) presents challenges because students speak many different dialects of Spanish.

use of nonequivalent constructs is one of the most serious errors" (Hambleton, 2005, p. 7) in testing across languages. To be successful, the translation process must be done by bilingual translators trained in test design and in the content areas of the assessment in both the target language and the source language. This is especially important, as content knowledge is taught differently, and at different periods, across the world. Therefore, test developers would need to be familiar with how content is taught in the students' native language to create valid items that measure the intended constructs. Even then, many concepts do not translate readily across multiple languages and with the same degree of difficulty and fidelity to the intended construct (Bowles & Stansfield, 2008; Solano-Flores, Backhoff, & Contreras-Niño, 2009). Such issues can be overcome by modifying the content of the original English assessment to reflect more translatable content or allowing for variation in the construct measured by the assessments (if direct comparisons are not needed). Test developers may also explore what level of equivalence of forms is necessary to use in these assessments for making instructional decisions within language groups. For example, van de Vijver and Poortinga (2005) outline several levels of measurement equivalence in cross-cultural assessments that permit different types of uses.

Further challenges with designing assessments of language proficiency and content knowledge for adolescent newcomers arise because the students have such a large range of skills. An assessment of the academic content knowledge of these students will not be a relatively narrow grade-level assessment like most existing assessments used in K–12 schools; instead, the diagnostic test will need to cover a range of content that is typically learned across all grade levels. Two concerns with an assessment of content knowledge over many grade levels are the issue of adequately sampling the domain of interest and the length of the test needed to reliably pinpoint proficiency. Potential solutions to this issue include use of computerized adaptive tests that can adjust the difficulty of test items or the use of routing tests, which are short screener tests that route students to a static test of appropriate difficulty (Laitusis, Cook, Buzick, & Stone, 2011; Lord, 1977).

Unlike the intake diagnostic assessments, the item content for each language available for benchmark assessments should not vary across languages because each student should be able to engage in the test using English and/or his or her native language. To support the ready translation/transadaptation of the benchmark assessments, test specifications will need to be developed that are appropriate across languages. This is less problematic than for intake assessments because the specifications will be driven by U.S. (English-centered) content standards and will be less flexible with regard to culture-specific content variations. Guidelines created for the development of culturally decentered assessments would provide a foundation for this process (Hambleton, Merenda, & Spielberger, 2005). As with the intake diagnostic assessments, the range of academic knowledge and skills that SIFE and other adolescent newcomers bring to U.S. schools will pose a challenge. Thus, another aspect of the benchmark assessments we propose is an adaptive design. Computerized tests can readily provide such adaptation and adjust to students' increasing achievement levels at each administration (Policy Analysis for California Education and Rennie Center for Education Research & Policy, 2011).

Summary and Implications for Practice

The assessment system we propose here would support the development of appropriate individualized instructional plans for adolescent newcomers of all backgrounds by, first, accurately diagnosing students' incoming academic language skills and achievement level, and second, by providing appropriate assessments that continue to update teachers' knowledge about students' language- and content-related academic skills. Both types of tests (intake and benchmark) come with significant challenges to assessment developers. The need for relevant and informative test data for adolescent newcomers, however, is critical. Francis et al. (2006) argue that effective classroom instruction has to begin with systematic assessment of students' strengths and weaknesses and must include ongoing monitoring of student progress. We believe that the proposed battery of assessments will give educators the

information they need in order to provide appropriate instruction to adolescent newcomers.

There have been a number of recent reports on adolescent newcomers, describing their characteristics and the challenges in educating them (e.g., Francis et al., 2006; Ruiz-de-Velasco & Fix, 2000; Short & Boyson, 2012; Short & Fitzsimmons, 2007). Researchers argue that the U.S. school system is not well equipped to serve these students, and many of them do not complete high school as a result. If U.S. high schools and colleges were to raise the graduation rates of all students to match the graduate rates of White students by 2020, "the potential increase in personal income would add more than $310 billion to the U.S. economy" (Alliance for Excellent Education, 2010). Adolescent newcomers are one of the most at-risk groups of students in the U.S. school system, and thus we need to develop strategies to better serve the needs of these students. Both Short and Fitzsimmons (2007) and Francis et al. (2006) call for new assessment systems as a critical tool in improving the education of adolescent ELL students.

Furthermore, the timing is right for developing appropriate assessments for newcomer adolescents. As new assessments are developed in response to the Race to the Top program, the type of benchmark assessments we propose might augment or form part of the Title I and III content tests being developed. There are indications that the concerns of ELL students, including the integration of accommodation options with the computer-based assessments, will receive greater attention at the outset of test development for the two state consortia developing assessments (Center for K–12 Assessment & Performance Management, 2011; Zehr, 2011). Because the majority of ELL students (and the attention) are at K–6 grade levels, however, adolescent newcomers may still not be fully served by the new tests. We hope that the proposals we make in this paper will affect the ongoing discussion about the way that all ELL students are served by school assessment systems.

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