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assessment report

# Transadaptation: Publishing Assessments in World Languages

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## Introduction

In recent decades, the nation's classrooms have seen an increase in the number of students who are not native speakers of English, a group referred to by the *No Child Left Behind Act* of 2001 (NCLB) as students with *limited English proficiency* (LEP). By the 2002–2003 school year, the size of this population had grown to approximately 5 million students out of the nearly 50 million enrolled in public K–12 schools, an 84% increase since 1992–1993 (National Center for English Language Acquisition, 2004). Policy makers have acknowledged the importance of making state assessments accessible to this special population of students, and NCLB requires assessments to be provided to them in their native language as appropriate. However, providing a test in another language after it has been developed and published in English can be as costly as producing a completely new assessment (Stansfield, 2003). Such an undertaking can pose a significant challenge for a state

To assess English language learners (ELLs) in their own language, states frequently look to publishers of educational assessments for solutions. As such, Pearson Inc. (Pearson) has developed a process for making its high-quality education assessments available in languages other than English. This process is not only a matter of directly translating a test form's English text to the second language (called the *target language*), but also of *adapting the content* to account for the linguistic and cultural differences between speakers of the two different languages. The combination of translation and adaptation



required to produce a reliable and valid version of an assessment in a language other than English is referred to as *transadaptation*. This report discusses the legal and technical background that motivates transadaptation, gives an overview of Pearson’s process for the transadaptation of assessment materials, and presents examples of test content that has been transadapted from English to Spanish.<sup>1</sup>

### **Legal and Technical Motivation for Transadaptation**

With the passage of NCLB into law, states have a legal mandate for providing test materials in languages other than English. Building upon preceding legislation, including the *Improving America’s Schools Act (IASA)* and the *Goals 2000: Educate America Act*, NCLB requires that reasonable accommodations be made available to ELL students who are subject to a state’s federally mandated accountability assessments. As a condition for receiving federal funding, every state has an interest in the needs of its ELL students. Specifically, NCLB requires

. . . the inclusion of limited English proficient students, who shall be assessed in a valid and reliable manner and provided reasonable accommodations on assessments . . . including, to the extent practicable, assessments in the language and form most likely to yield accurate data on what such students know and can do in academic content areas, until such students have achieved English language proficiency . . .  
(NCLB, § 1111 [b] [3] [C] [ix] [III])

Through recent research, Pearson has determined that acceptable accommodations for ELL students being administered the English version of a standardized assessment may range from providing extra testing time to the student to allowing the use of dictionaries or word lists (Case, 2003). Under NCLB, a local education agency may determine that an ELL student’s assessment should be administered in a language other than English (that is, the student’s native language) to obtain the most valid and reliable results. It is the responsibility of the state to provide test materials in the student’s native

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<sup>1</sup> Although English and Spanish are used in the examples in this paper, Pearson uses the processes described to translate assessments from English into any language a state requires, such as Haitian Creole, Russian, Arabic, Native American languages, and African dialects.



language. However, this requirement on the state is limited. NCLB requires each ELL student to demonstrate proficiency in English and transition to English versions of the assessments within three years of entering the school system (NCLB, § 1111 [b] [3] [C] [x]).

The legal motivation for providing assessments in multiple languages has a technical basis that existed well before the enactment of current federal legislation. Educational researchers assert that if a student who does not have a native understanding of English is administered an assessment in English, the validity and reliability of the assessment may be cast into doubt. In this situation, the assessment may be understood as measuring how well the student comprehends the English text used in the test materials rather than measuring his or her knowledge and understanding of the subject-matter content. As noted by Stansfield (2003, p. 190), the *Standards for Educational and Psychological Testing* (AERA, APA, and NCME, 1999) states the following:

When testing an examinee proficient in two or more languages for which the test is available, the examinee's relative language proficiencies should be determined. The test generally should be administered in the test-taker's more proficient language, unless proficiency in the less proficient language is part of the assessment. (AERA, APA, and NCME, 1999, p. 98)

These standards mandate that any publisher of educational or psychological assessments make test materials available in other languages when it is deemed necessary to preserve the validity and reliability of the test.<sup>2</sup> The precedent for translating tests into a language other than English for the purpose of preserving validity and reliability has been well established by the publication of Braille versions of test materials (Stansfield, 2003). The principal challenge for test publishers is to ensure that the process of making the test available in another language does not change the quality or characteristics of the test. Essentially, the test should consistently measure what the student knows and can do in a subject area, regardless of the language used in the test materials.

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<sup>2</sup> Note that it is explicitly *not* required—by NCLB or the *Standards for Educational and Psychological Testing*—to provide translated materials or certain accommodations to an LEP student when the assessment itself is a test of English language proficiency. Doing so would defeat the purpose of such an assessment.

## Combining Translation and Adaptation

For most publications, the process of making text available in another language can be a relatively straightforward process. That is, the text is translated from English to another language by a native speaker of that language, preferably someone who is also a professional translator. However, such a direct translation of test materials, especially the content of each item, can have unintended consequences. The primary concern that arises is the possibility that the difficulty level of an item could significantly change when it is translated into a second language (Kramer, Robertson, Rodriguez, 2004). This change could occur as a result of words being chosen for the item in the second language that are at a much higher grade level than the words in the original English version of the item. Therefore, the process for translating item content must address and prevent any change in the grade level or difficulty of the item.

When translating item content, translators must remember that choosing to use only the most appropriate words at the corresponding grade level may not be sufficient to preserve the validity of the assessment. They must also take into account linguistic and cultural differences that exist between speakers of two different languages. Not accounting for these differences may be a source of bias that will cause an item to measure a LEP student's achievement differently than the original version of the item does for native speakers of English.

To address these differences, a translator may be required to adapt an item's content to the culture associated with the native language of the LEP student. Stansfield (2003) provides the example of an assessment for auto mechanics translated from US English to French. To maintain the validity of the assessment, the content of such a test must be adapted so that it includes the makes and models of automobiles likely to be encountered in France rather than those automobiles commonly found in the United States. In other contexts, adaptation is frequently recognized as essential to convey meaning. For example, the dialogue of English-language comedic television programs must frequently be culturally adapted for certain situations to remain humorous when translated into another language (Kramer et al., 2004).

## Transadaptation of Assessments at Pearson

Pearson has more than ten years experience providing educational and clinical assessments in languages other than English to meet the needs of state ELL student populations as well as to make assessments available internationally. Using research conducted during the early 1980s, Pearson established a systematic, refined process to guide the transadaptation of assessments from English into other languages. Working closely with professional translators,



assessment specialists, teachers, state departments of education, and users of norm-referenced and standards-based tests, Pearson’s language research team developed an industry-leading transadaptation methodology.

To address cultural differences, Pearson uses a research-based approach that focuses on flexibility and on creation of a natural context for each item in the target language. By carefully analyzing the original English text and relying on educators who are native speakers of the target language, Pearson successfully accounts for linguistic and cultural differences through a process that has been used in the transadaptation of a variety of academic achievement tests. The original English content of an item is adapted prior to translation so that its rendition is culturally rich. Ideally, the transadapted items should reflect the terminology and language of the target language’s textbooks and classrooms.

### **Limitations of Transadaptation**

It should be noted that transadaptation is not always possible in assessment. The first step in maintaining the integrity and the equity of the test for non-English speaking students is determining whether any item should be omitted. The decision to drop items from a test must be made by experts in the content area who are native speakers of the target language from varied countries of origin. A similar process is followed to create special editions of tests in Braille for the visually impaired. Once the experts determine that the concepts in the test will yield the expected results in the target language, transadaptation may begin.

### **Pearson’s Policy on “Back Translation”**

In the “back translation” approach, tests are translated from English into the target language and then back into English. A common criticism of back translation is that the differences in categorization and conceptual understanding of text by each of the translators may seriously compromise the quality of the translation to the target language. Moreover, if the original translator translates text with the knowledge that it will be back-translated by a second translator, the result could be text that is quite literal (and therefore easy to translate back into the original language) but that does not represent a natural expression of the content. For translations of assessments, this upshot may cause a test item or stimulus to become much more difficult for the student taking the test in the target language than for the student taking the test in English.

The methodology of back translation has been discussed in the literature on cross-cultural psychology for years and is considered to be discredited, particularly in the case of a language for which good translators are available, such as Spanish (Stansfield, 2003). As such, Pearson does not use back translation to produce translated materials for educational assessments. Rather, Pearson considers the

evaluation of the initial translation by a second translator as the best method for validating a translation.

### **The Transadaptation Process**

The first phase in the transadaptation of an assessment is the creation of a project team consisting of a product manager, a research director, assessment specialists and editors, psychometricians, and at least two professional translators. Typically, all members of the project team (possibly excluding the psychometrician) are bilingual in English and the target language. The research director and a product manager plan the scope of work, gather resources, and coordinate the efforts of the translators and reviewers. Pearson relies on the services of certified professional translators who also have knowledge of the subject area content that the assessment measures. Additional experts on cultural issues pertinent to speakers of the target language are consulted to perform bias and sensitivity reviews of the translated test materials. The combination of expertise in language, content, test development, and cultural sensitivity which the members of the project team provide is critical to Pearson's transadaptation process.

If a state's accountability assessment is subject to transadaptation, the state department of education consults with the project team. Based on the requirements of the state, Pearson may adapt the standard process and quality control procedures to include additional field testing of items, statistical analysis, and qualitative analysis.

Once the project team has been established, transadaptation of the assessment includes the following tasks:

1. A professional translator performs the initial forward translation with focus on the linguistic aspects of the assessment.
2. A second professional translator uses the initial forward translation to produce a second translation with a focus on the content of the assessment.
3. A third professional translator reviews and compares the two forward translations and makes recommendations for additional revisions.
4. The translation is submitted to the state agency for review.
5. Pearson meets with the state agency to address any issues raised by the state agency's review.

6. Pearson and the state agency collaborate to revise the translation of the assessment for appropriateness, correctness, and content accuracy
7. Pearson's assessment specialists and psychometricians review and approve the translation.
8. Assessment specialists adapt each item to match the content, context, skill, and cognitive level measured by the English version of the assessment.
9. Professional bilingual editors review the adapted items.
10. Assessment specialists meet with panels of native-speaking, bilingual educators to ensure that the items are at the target level of the language and accurately reflect the language used in the classroom.
11. Assessment specialists adapt any art that is included with each item to account for cultural issues and balanced representation of ethnic groups.
12. A senior assessment specialist conducts a final review of the materials, addressing the idiomatic expressions, language style, cultural relevancy, and cultural sensitivity of each item's text and art.
13. Professional bilingual editors review the text developed by the Senior Assessment Specialists to insure strict adherence to the conventions of the target language.
14. Pearson conducts an item tryout research program to gather item performance data and further refine the quality of the transadapted items.
15. Pearson's project team analyzes the data from the item tryout research program to determine whether the performance of the transadapted items is equivalent to the performance of the English items.
16. A panel consisting of Pearson assessment specialists, outside experts in the development of transadapted tests, and bilingual state educators is convened to review the data from the transadapted assessment.
17. The psychometricians approve the final forms.
18. A compositor finishes the typesetting, formatting, and publication of the final test materials. Throughout the process, a team of professional bilingual translators safeguards the integrity of the text being composed.

**Examples of Transadapted Items**

Examples of prompts and multiple-choice items which have been transadapted from English to Spanish follow:

**Listening**



**DIRECTIONS**

Look at the large picture below. Then listen to the person talking. Read the question and look at the four answer choices in the pictures. Fill in the correct circle on your answer sheet.

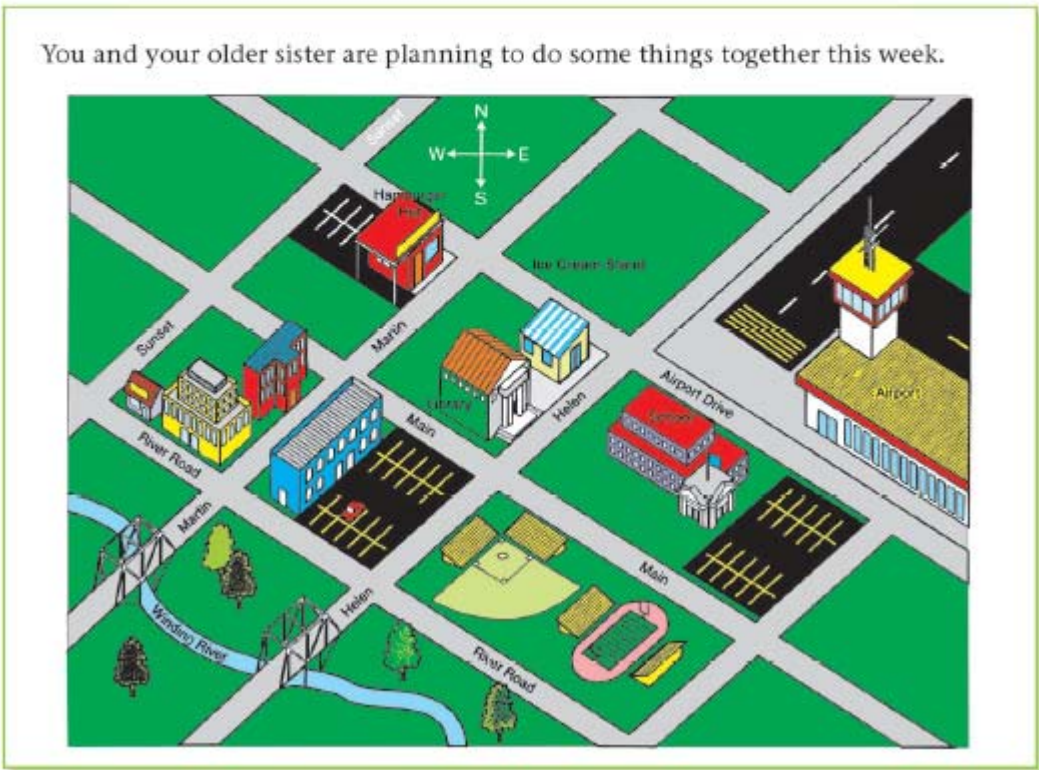


Figure 1. English item prompt with artwork.

# Comprensión Auditiva

## NIVEL INTERMEDIO



### INSTRUCCIONES

Mira el dibujo grande de abajo. Escucha a la persona que habla. Lee la pregunta y mira los cuatro dibujos pequeños. Luego llena el círculo correcto en tu hoja de respuestas.



Figure 2. Item prompt with artwork transadapted into Spanish.

## Reading

**DIRECTIONS**

Read the story and each question. Fill in the correct circle on your answer sheet.

### Chirp!

by Sue Bradford Edwards

"What are you doing on your hands and knees?" Anthony asked his sister. Pamela was staring down at the back porch.

"It chirped!" she squealed.

On the floor was a sparrow, too tired to struggle when Anthony scooped it up.

"Let's take it out in the grass."

"Don't leave it on the ground," Pamela protested as he set it down. "It's too weak to escape Mrs. Anderson's cat."

Anthony knew she was right. He went inside and brought out a cracker. The sparrow didn't try to eat.

"What do birds eat?" Pamela asked.

Anthony looked around the yard. His teacher had told them that birds eat many insects.

Anthony dug in the earth. He found a tiny worm that he gave to the bird.

The sparrow swallowed it.

After two worms, the sparrow pumped its wings and, with a jump, whistled and flew away.

Pamela and Anthony stood together on the back steps and looked up into the tree.

They smiled at their sparrow sitting on the branch.



Figure 3. English reading item prompt.

**Lectura****INSTRUCCIONES**

Lee el cuento y cada pregunta. Luego llena el círculo correcto en tu hoja de respuestas.

**¡Pío, pío!**

Por Sue Bradford Edwards

—¿Qué haces agachada de rodillas? —Le pregunta Antonio a su hermanita.

Patricia estaba afuera en el patio de atrás.

—¡Hizo pío, pío!— dijo la niña con un chillido.

En el piso estaba un gorrión. Se veía muy cansado como para tratar de soltarse cuando Antonio lo levantó.

—Vamos a ponerlo allá en el pasto.

—No, déjalo en el suelo —protestó Patricia mientras Antonio lo dejaba en el piso—. Está muy débil, no podría escaparse del gato de la señora Andrade.

Antonio sabía que Patricia tenía razón. El niño se metió a la casa y trajo una galleta salada. El gorrión no trató de comérsela.

—¿Qué comen los pájaros? —preguntó Patricia.

Antonio miró alrededor del patio. Su maestra les había dicho en la clase que los pájaros comen muchos insectos.

Antonio escarbó la tierra del jardín. Encontró una lombriz pequeña y se la dio al pájaro.

El gorrión se la tragó rapidito.

Después de dos lombrices, el gorrión aleteó sus alas y, con un brinco, silbó y se fue volando.

Patricia y Antonio se quedaron juntos en los escalones del patio mirando hacia lo alto del árbol.

Sonrieron al ver a su gorrión parado en la rama.



**Figure 4. Reading item prompt transadapted into Spanish.**



**1** Where did the children find the bird?

- A** In a tree
- B** In the grass
- C** On their back porch
- D** On the back steps of their house

**2** Why was Pamela worried?

- A** Mrs. Anderson might find them in her yard.
- B** Anthony wouldn't feed the bird.
- C** A cat might catch the bird.
- D** The bird might fly away.

**3** In line 9, what does the underlined word protested mean?

- A** Tried out
- B** Hoped for
- C** Pulled forward
- D** Argued against

Figure 5. English multiple-choice reading items.

**Lectura**

**1**

¿Dónde encontraron los niños al pájaro?

A En un árbol  
B En el pasto  
C En el patio de atrás  
D En los escalones de atrás de su casa

**2**

¿Por qué estaba preocupada Patricia?

A Temía que la señora Andrade los encontrara en su patio.  
B Creía que Antonio no quería darle de comer al pájaro.  
C Temía que un gato atrapara al pájaro.  
D Creía que el pájaro se podía ir volando.

**3**

¿En la línea 9, qué quiere decir la palabra subrayada protestó?

A Probó  
B Esperó  
C Empujó  
D Reclamó

Figure 6. Multiple-choice reading items transadapted into Spanish.

## Conclusion

The process of transadapting an assessment from English to another language can be time-consuming and expensive. However, transadaptation of educational assessments, especially those used for compliance with NCLB and other legislation, is essential to the academic achievement of *all* students. Providing assessments that have been transadapted to student's native language is an important step toward bringing the child into the classroom and contributing to his or her attainment of English language proficiency. Using experience and resources accumulated during almost a century of publishing high-quality educational assessments, Pearson is uniquely capable of helping states find the best solution for assessing their growing ELL student populations.

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