As you noted, there is a great deal of information in the CELF-5 Examiner's Manual and Technical Manual that address the appropriateness of CELF-5 for a diverse range of students. While no test is appropriate for *every* student tested, Pearson and the test authors have taken multiple steps to minimize bias for the African American population as well as other culturally and linguistically diverse (CLD) populations.

In the **Examiner's Manual**, the following sections provide information to clinicians about cultural diversity, dialectal variations, and language differences and cultural sensitivity.

Chapter 3: Cultural Diversity (pp. 21-22) discusses variations in communication styles and considerations to consider during testing as well as options an examiner has to provide students with additional practice items and/or additional response times if the student lacks familiarity with the testing process. Numerous citations direct examiners to more comprehensive information about culturally appropriate testing practices.

Chapter 3: Dialectal Variations (pp. 22-23) presents modified scoring so that any student who uses a variation of American English other than Mainstream American English (MAE) will have his or her responses scored as correct if the responses follow the linguistic rules of the dialect he or she is using. Numerous citations direct examiners to more comprehensive information about language patterns of speakers of non-mainstream dialects as well as typical and atypical dialectal variations.

Appendix I: Language Differences and Cultural Sensitivity (pp. 275-289) provides detailed information about bias in testing, including content and linguistic bias. A brief description of the CELF-5 studies conducted to minimize bias for students with Hispanic, African American, Asian, Native American, and Pacific Islander backgrounds is provided. In addition, charts are provided for clinicians' reference to identify common phonemic and linguistic contrasts between

African American English and MAE Spanish-Influenced English and MAE

Chinese-Influenced English

Southern English

Modified scoring so that students are given full credit for responses that are appropriate to their dialect is not new to CELF-5. CELF-4 also included guidelines that enable students to earn full credit for dialectal responses. Even though detailed guidelines are listed for the dialects noted above, a clinician familiar with the linguistic rules of the student's dialect may score the student's response as correct. No students are penalized for using a dialect response that differs from MAE.

In the **Technical Manual**, Chapter 2 provides detailed information about CELF-5 bias studies.

Item Bias Review (pp. 21-23) explains how test items were constructed to minimize gender, ethnic/cultural, regional, and socioeconomic bias. Test items and art depict a variety of age/ethnic/socioeconomic groups in the context of familiar home and school situations. Two expert panels (a content review panel and a bias review panel) reviewed all items and art. In addition, items were modified and tested in multiple research phases to verify familiarity and appropriateness for a wide range of cultural groups (as well as their ability to differentiate typical from atypical development).

In addition, CELF-5 was standardized in 459 examiners in 47 states in the US. Examiners were asked to complete a questionnaire about the appropriateness of the CELF-5 content revisions and appropriateness for the students they tested (p. 26). They provided detailed feedback about test items.

Statistical Bias Analyses (p.25) explains the studies examining group performance differences during item tryout. To make sure the samples included sufficient representation of ethnic/cultural groups, specific groups were oversampled. For example, an oversample of 129 African American students was collected (this sample was over and above the number required to collect the tryout sample so that statistical analysis could be done). Any items that were identified statistically as possibly biased against African American students were either edited (with input from our expert panel) or dropped from the test.

Standardization Samples (pp. 26-32) includes detailed information about the composition of the standardization sample.

As Scheffner Hammer (2011) noted when writing about research participant descriptions,

"At a minimum, information needs to be provided about participants' age, gender, race/ethnicity, SES/educational level, and languages spoken. However, additional information may be pertinent to specific investigations, depending on the populations studied and research questions asked. Such information includes, but is not limited to, participants' generational or immigrant status, cultural group, country of origin, years in the United States, English fluency, dialect spoken, language experiences (i.e., exposure to and usage of English), and other characteristics that may aid in the interpretation of results (American Psychological Association, 2010; Beins, 2009). Without the inclusion of such information, researchers risk assuming the stance of "absolutism," which assumes that the phenomena of interest are the same regardless of culture, race, ethnicity, and SES. Provision of detailed information about participant characteristics allows researchers to move toward a position of "universalism," which recognizes that "there may be universal psychological processes ... that ... manifest differently" depending on the culture, race/ethnicity, and or SES of participants (Beins, 2009, p. 356). This applies to the study of biological factors as well. In other words, researchers cannot assume that no differences exist between groups until this underlying hypothesis has been proven.

The CELF-5 Technical Manual (pp. 26-32) includes information about the number of standardization participants and demographic characteristics in comparison to national census figures (age, gender, region, parent education level, which is used as a proxy for socioeconomic status.) Tables 2.2, 2.3, and 2.5 present census information separately for White, Hispanic, African American, Asian, and Other by age. The first two paragraphs on page 32 reports detailed information about students in the sample: other languages spoken, dialects other than MAE spoken (with 5.5% speaking African American English), percentages of students reported to be bilingual, and educational placements. In summary, each of these studies provides one piece of evidence that the test is appropriate for a diverse range of students:

- expert content and bias reviews
- multiple research phases
- statistical bias analysis that included an oversample of African American students

- inclusion in the sample of a representative percentage of African-American students,
- examiner feedback
- inclusion of guidelines providing examiners with information about cultural sensitivity and scoring rules that enable examiners to score student's responses as correct when following linguistic rules consistent with the dialect spoken by the student

While none of these studies examined individually ensures appropriateness of a test for a given student, when examined collectively, it provides a substantial body of evidence that CELF-5 can be used with confidence with a wide range of diverse students.

References

Scheffner-Hammer, C. (2011), The importance of participant demographics, *American Journal of Speech-Language Pathology*, Vol.20, 261. doi:10.1044/1058-0360(2011/ed-04)

Wiig, EH, Semel, E, and Secord, WA (2013). *Clinical Evaluation of Language Fundamentals Fifth Edition Examiner's Manual.* Bloomington, MN: Pearson.

Wiig, EH, Semel, E, and Secord, WA (2013). *Clinical Evaluation of Language Fundamentals Fifth Edition Technical Manual.* Bloomington, MN: Pearson.

Let me know if your group has additional questions or comments--I'll be glad to talk with you! Nancy

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