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Linguistic Simplification: A Promising Test Accommodation for LEP Students?

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Second Language Testing

In recent years, there has been much discussion about the role of language minority students in state assessments. The vast majority of states surveyed have dealt with the issue by exempting language minority students, with forty-four of forty-eight states exempting limited English proficient (LEP) students from one or more assessments, and more than half (27 of 44) routinely exempting LEP students from state assessments altogether (Rivera et al., 1997). Rivera and Vincent (1997) have questioned the wisdom of this policy. They argue that if LEP students are meant to attain the same high performance standards as their monolingual counterparts, they should be included in state assessments as well. Instead of excluding LEP students from assessments, they argue that states should make judicious use of accommodations that are specially designed with these students' linguistic needs in mind.

There has been little experimental research conducted to investigate the overall effects of accommodations such as those used for students with disabilities, let alone research on accommodations that address the linguistic needs of LEP students. Without empirical data, it is unclear what role a particular test accommodation may play. One accommodation may give an unfair advantage to examinees receiving it, whereas another may not improve the performance of even those who have special needs and should benefit the most from it. Therefore, it is essential that research be conducted to determine whether accommodations are a threat to a test's reliability and validity, or to score comparability for examinees who receive them and examinees who do not.

This article is a synopsis of an experimental study of the effects of linguistic simplification, a test accommodation designed for LEP students. Conducted as part of Delaware's statewide assessment program, this study examined the effects of linguistic simplification of fourth- and sixth-grade science test items and specifically looked at score comparability between LEP and non-LEP examinees.

Why Linguistic Simplification? A Review of the Literature on Simplified English

Although the concept of simplifying English has been around for more than seventy years, it has received little attention in research. The first "Basic English" system was designed in 1932 as an alternative, easy means of cross-cultural communication (Ogden, 1932). It consisted of a core vocabulary of 850 words and a few limited syntactic structures.

The concept lay dormant until the 1970s and 1980s, when it was picked up again by multinational corporations looking to facilitate communication and training. Among others, the Caterpillar Corporation (Association Européenne de Constructeurs de Matériel Aérospatiale, 1972) and Boeing, Inc. (Shubert et al., 1995) used simplified English to prepare their training manuals for use around the world. Despite its use in corporate settings, only two experimental studies appear to have been conducted on linguistic simplification as an accommodation for LEPs.

Abedi and others (1998) did a study of simplification using mathematics items from the National Assessment of Educational Progress (NAEP). He administered regular NAEP math assessment, a simplified English version, or a Spanish version of the items to 1400 eighth-grade students in southern California middle schools. Results indicated that both LEP and non-LEP students performed best on the simplified version and worst on the Spanish version. However, his analyses also suggested that linguistic simplification doesn't always work as intended, as significant differences in item difficulty were obtained on only 34% of the simplified items. Abedi concluded that linguistic simplification of math items might be beneficial to all students, not just those with limited English proficiency.

Kiplinger et al. (2000) conducted another study using mathematics items from NAEP. This time, a simplified English version, a version with a glossary containing definitions of non-technical terms, and an unsimplified version were administered in Colorado. The instruments were randomly assigned to 1200 special education, LEP, and regular fourth-grade students. Their results showed no significant difference for the three versions across all three types of students, and neither regular nor LEP students performed significantly better on either version. They did find, however, that the students who performed best on the test benefited most from the version that had a glossary, and somewhat from the simplified version. On the basis of these findings, the researchers concluded that glossaries and linguistic simplification might benefit all students.

Experimental Study on the Effects of Linguistic Simplification on a Statewide Science Assessment

Rivera and Stansfield (2001) used Abedi (1998) and Kiplinger et al. (2000) as an impetus for further research on linguistic simplification. Both of these previous studies seemed to provide evidence that linguistic simplification of items might be a useful accommodation for LEPs in formal assessment settings. However, Rivera and Stansfield highlighted the need for a formal experimental study to determine the effect linguistic simplification might have on scores for LEP and non-LEP students. Only once score comparability has been established can an accommodation be rightfully endorsed.

The two researchers conducted a study to examine the effects of linguistic simplification on fourth- and sixth-grade science test items used in the Delaware Student Testing Program. At each grade level, four experimental 10-item testlets were included on the operational forms of the science test. Two of the testlets contained regular field test items that had been linguistically simplified, and the other two contained the same field test items written in regular (unsimplified) English. The testlets were randomly assigned to both LEP and non-LEP students throughout the state.

A total of 11,306 non-LEP students and 109 LEP students took one of the forms of the test. Because the number of LEP students was split among the eight forms, the number of LEP students taking each test form was small, ranging from 6 to 23 students. While the researchers caution that due to the limited sample size, nothing can be generalized about linguistic simplification as an aid to LEP students, the findings for the large non-LEP sample are quite clear. Results of t-tests performed on mean raw scores, analyses of variance (ANOVAs), and post-hoc pairwise comparisons all indicated that overall, there was no significant difference in scores of non-LEP students who took the simplified version as opposed to the regular (unsimplified) one. This is an important finding because it shows that linguistic simplification can be used without fear of providing an unfair advantage to those who receive it, and thereby affecting the comparability of scores across examinees in this condition. Since linguistic simplification is able to reduce the level of English language proficiency needed to comprehend a test item, it is likely that it can reduce the role of language proficiency in achievement test scores in general.

Limitations and Suggestions for Further Research

Other studies should now address the issue of the usefulness of linguistic simplification for LEP students taking formal and high-stakes assessments. If experimental studies involving large samples of LEP students who are randomly assigned to treatments show that those LEP students who receive simplified items perform statistically and meaningfully better than those who receive the unsimplified version of such items, then the utility of linguistic simplification in meeting the needs of LEP test-takers will be established.

In this study, we chose to simplify items on a statewide science assessment. Therefore, the preliminary results we obtained may not hold for other subject areas, and further research is needed to determine the effects of linguistic simplification in other areas such as math and social studies.

While the small sample size did not allow us to address the effectiveness of linguistic simplification for LEPs, the study's results did show that tests and items can be linguistically simplified without compromising score comparability. However, test developers must exercise caution when carrying out the process of linguistic simplification. The result of the process of linguistic simplification must be to make items accessible to LEPs while not altering the difficulty of the content being tested. And at times, in some items, language and content interact to such an extent that simplification is not possible. However, the results of this study suggest that if test developers and researchers are careful in carrying out linguistic simplification, the resulting assessment could address the linguistic needs of the LEP students without compromising the comparability of the scores obtained on the assessment by taking the standard English version.

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