

**A “Triangulated Data” Approach to Assessing Academic English of English
Language Learners**

Sharon Switzer

East Stroudsburg University

Paper presented at the Pan Pacific association of applied linguistics

July, 2006

Kangwon University

Chuncheon, South Korea

Abstract

There are many types of assessment methods used to assess the English ability and progress of English language learners in the United States. Assessing the English language ability of English language learners enrolled in U. S. schools is a complex issue – and a critical one, for in addition to learning to speak, understand, write and read in English as a second language, students must progress in substantive academic content areas, such as literature, science, math, history, geography, and other academic content. It is therefore critically important that student language acquisition be assessed appropriately.

In order to know what level of English language support students need in order to continue their school progress, it is imperative that school personnel conduct adequate and appropriate assessment of the English language learners enrolled in U.S. Schools. Published assessments of English language proficiency are available, and these tests may provide some indication of an English language learner’s ability to communicate orally. However they often provide little indication of a student’s “academic English” ability, that is, the ability to read, write, speak, and understand English required in the typical U.S. classroom.

Because second language acquisition is a complex process, no single test can adequately assess the ability of English language learners to master academic English. Therefore, a “triangulated data” approach is required. This paper will suggest a “triangulated data” approach to assessing the “academic English” of English language learners in U.S. schools and will explain how this approach might be used to determine the “academic English” ability of English language learners. It will also suggest how this determination can inform the ESL program placement of the student. This “triangulated data” approach relies upon gathering information from multiple sources to ascertain the “academic English” proficiency of the English language learners and includes 1) an in-classroom observational protocol to assess the speaking and listening proficiency of the students, 2) an analysis of the students’ standardized test scores in English, and 3) a formal test of English proficiency.

High Stakes Assessment in U.S. Public Schools

During recent years concerns have been raised in the United States regarding the decline of American student performance on international comparisons. These concerns have led to the Development of the National Educational Goals and The Goals 2000: Education America Act (Lam, 1993). These statutes have led to the implementation of high stakes assessments as a means to raise educational standards in the U.S. to a “world class level” (Stansfield, 1994).

These laws emphasize and require students to take annual standardized tests to measure student progress in the core academic subjects. In an effort to ensure a high quality education for ELLs (English language learners)¹, these laws also require that such students are annually assessed to measure their progress in English proficiency.

Classroom Assessment

Assessment, as it is used in the classroom, involves gathering information about student performance in order to ascertain what students have learned. The focus of such classroom assessment goes beyond merely auditing student performance. Rather, classroom assessment is conducted in order to glean evidence regarding student learning in an effort to improve student performance (Smith, Teemant, & Pinnegar, 2004). Evidence that is gathered to learn about student performance often parallels data collection activities used in research and/or program evaluation for purposes of gaining understanding about a particular question or program under examination.

Triangulation

One technique that is common in qualitative research is triangulation, in which the researcher relies on multiple sources of data (Cresswell, 1998). This technique has gained wide acceptance among qualitative researchers as a means to strengthen the research rigor through

¹ In this paper, ELLs are defined as students whose first language is not English and whose English (speaking, writing, reading and/or listening comprehension) is less proficient than that of native English speakers.

the combination of multiple methods, measures, researchers, theories and perspectives (Denzin, 1979; Patton, 1990; Denzin and Lincoln, (eds.) 1994; Miles, and Huberman, 1994).

According to Denzin (1979), there are four types of triangulation techniques used to strengthen the rigor of qualitative research. The first is data triangulation, in which the researcher uses of a variety of sources to collect data. The second is investigator triangulation, in which more than one researcher is investigating the phenomenon under study. Third is theory triangulation, in which the researcher(s) apply multiple theories and/or perspectives in interpreting the data. The fourth type of triangulation, according to Denzin, is methodological triangulation, in which the researcher(s) use multiple methods to study the problem under investigation.

Such triangulation is recommended in qualitative research for several reasons. First, triangulation enhances the trustworthiness of analysis by providing a more inclusive and complete narrative (Kidder and Fine, 1987; Mason, 1994). The collection and analysis of data from several sources is likely to include information that might be lost if only one method, source of data, researcher, or theory were applied.

Secondly, triangulation reduces the bias and limitations of any individual method by compensating with the strengths of another method (Lincoln and Guba, 1985). As will be discussed later in this paper, many factors may converge in an assessment of student learning that influences student performance and outcomes.

The use of multiple methods, sources of data, theories, or researchers and multiple perspectives leading to the same results strengthens the validity of the interpretation of the data. Furthermore, such multiple perspectives add richness and new perspectives to the data collection (Fielding and Fielding, 1986; Brannon (ed.), 1992).

In addition to this strengthening of validity of research and data interpretation, triangulation is required in the study of language, culture, and other complex phenomena in

order to capture multi-faceted influences that may be present, such as differing ages, genders, experiences of spirituality, ethnicity, etc. (Perlesz and Lindsay, 2003).

Furthermore, the use of both qualitative and quantitative methods of inquiry can lead to confirmation of the argument either through divergence (when multiple methods lead to similar conclusions); or in the case of dissonant results, such multiple methods can open pathways to new theories and areas of further exploration and research (Perlesz and Lindsay, 2003). Denzin has likened the use of multiple methods in research to a kaleidoscope (1979), in which we are able to see many perspectives when examining a question. The use of multiple methods in research allows the examination of different assumptions, different emphases, different priorities, and different strengths and weaknesses to converge in such a way that they reveal different aspects of the “reality” under study.

Multiple modes of assessment

Similarly, multiple modes of assessment have been recommended for understanding student progress in the classroom situation. Different assessments of student learning emphasize different types of learning. Reliance on only one type of assessment task, such as multiple-choice questions, emphasizes only one type of student learning to the neglect of others (Smith, Teemant, and Pinnegar, 2004). This may lead to inaccurate conclusions regarding student progress and student learning.

Wiggins and McTighe (2005) suggest that students need to be assessed using three modes of assessment:

1. Performance task
2. Knowledge and skill
3. Criteria referenced assessment

Following their model of assessment, students may demonstrate their learning by performing a task which demonstrates that they have mastered the content under study. They may also demonstrate their learning through explanation, writing, or discussion to show their knowledge

and skill of the content under study. Finally, the students may also demonstrate their learning through criterion-referenced assessments such as the standardized assessments.

Smith, Teemant, and Pinnegar cite three sources of evidence that effective teachers use in assessing student performance (Smith, Teemant and Pinnegar, 2004). Teachers should gather data regarding student learning through classroom observation by observing what students do. They should also listen to what students say, either orally or in writing, in order to know what content or skill students have mastered. And finally, teachers need to examine the projects and/or demonstrations students produce that show what skills, knowledge, and understandings they have mastered.

Limitations of Standardized assessment of ELLs (English Language Learners)

In applying these recommendations of assessment of student learning specifically to learning in the case of ELLs, we note that standardized assessments, which may be one source of data teachers may use in assessing student learning, have several shortcomings. At best, standardized tests can offer only general estimates of learners' abilities. Furthermore, Brindley and Slatyer (2002) have identified problems of validity and reliability in outcome assessment of ESL listening skills. The reliability of standardized tests has been called into question due to multiple factors that influence test outcomes, such as,

1. the health, mood, motivation, test-taking skills, or general abilities of students,
2. the quality of directions and the ambiguities of language,
3. distracting conditions in the environment and interruptions during test administration,
4. biases of the observer, errors on the scoring sheet, or even bad luck (Smith, Teemant, and Pinnegar, 2004, p. 42).
5. variations in the way tests are designed, rated, administered, and conditions of testing that may influence outcomes (e.g., interlocutor behavior may influence outcomes of task assessments) (Smith, D. 2000; Wigglesworth, 2000).

6. speech rate, length of passage, syntactic complexity, vocabulary, noise level, accent, register, amount of redundancy, amount of context provided, clarity of instructions, response format, availability of question preview, listener memory, listener interest, prior background knowledge of listener, motivation of listener may all influence outcomes of listening assessments (Buck, 2001; Rost, 1990; Henning, 1991; Dunkel, Henning, and Chaudron, 1993; Flowerdew, 1994; Rubin, 1994; Freedle and Kostin, 1996; Nissan, DeVincenzi, and Tang, 1996; Jensen, Hansen, Green, and Akey, 1997; Brindley, 1998).

While published assessments of English language proficiency are readily available and easily administered to large groups of students, these tests often provide only one indication of an ESL student's ability to communicate. Unfortunately, they often provide little indication of a student's CALP (cognitive academic language ability) (Cummins, 1979), which is essential for student success in the mainstream American classroom. Because of these variations, language test score should not be interpreted simplistically as an indicator of the particular language ability we want to measure.

Complexity of Second Language Acquisition

English language learning in U. S. elementary schools is a complex process leading to graduation from U.S. secondary schools and preparation for higher education. Mastery of English involves mastery of oral speaking, listening, comprehension, reading comprehension, and writing. Literacy activities in the classroom must be mastered (reading texts for subjects such as geography, history and literature, and mathematics; writing which requires mastery of grammar, punctuation, spelling, and English usage).

Accordingly, assessment of ELLs enrolled in U.S. schools includes speaking, understanding, writing and reading in English as a second language; as well as progress in academic content areas, such as, literature, science, math, history, geography, and other academic content. This academic language of the classroom and textbook (CALP) differs from

the English language of daily living, basic inter-communication skills (BICS). (Cummins, 1979, 1984); and research shows that it can take from five to ten years to master such academic English (see Cummins, 1984).

Because of the high stakes nature of the mandatory testing in U.S. schools, it is critical that student language acquisition be assessed appropriately. This challenge requires that U.S. schools provide sufficient data/evidence regarding ELL mastery of both English and content. Policymakers and other stakeholders need to recognize that no single test alone can adequately assess the ability of English language learners to master academic English. In addition, the complex nature of assessing both English language learning and mastery of content in English requires that multiple methods, as described above, be used to adequately assess the progress of ELLs. Thus I suggest an approach modeled on the triangulation techniques described above which are used in qualitative research.

“Triangulated data” approach

The “triangulated data” approach to assessing ELLs relies upon gathering information from multiple sources to ascertain the “academic English” proficiency of the English language learners. Such an approach includes:

1. An in-classroom observational protocol to assess the speaking and listening proficiency of the students,
2. Analysis of the students’ standardized test scores in English, and
3. Formal test(s) of English proficiency.

Any and all sources of evidence related to students’ progress in English language proficiency should be considered², but the three sources of data listed above would provide a triangulation of data that would yield a more reliable and valid assessment of ELL proficiency than any one assessment alone.

² Other sources of evidence which yield important information may include reports of parents, student portfolio artifacts, teacher progress reports, student self-assessment of English learning, student projects or artwork, dramatizations, etc.

Placement and Annual Monitoring

This more reliable and valid assessment of ELL proficiency should have a positive effect on the placement and annual monitoring of students. As stated, the placement of ELLs into an appropriate English language development program needs to take into account not only scores on standardized assessments of English language proficiency, but also students' ability to master the content of the mainstream classroom – which, of course, is conducted in English. Progress in English proficiency needs to be evident in reading and writing, as well as in speaking and listening. A careful monitoring of student academic progress during the course of a semester or a year can yield valuable data regarding the student's English proficiency. The key question to ask is: Have they made academic progress or maintained proficient level of academic English according to multiple assessments?

If the answer is yes, then students should be moved to the next level of English language classes, support, or exit from the program. If the answer to the question is no, then the data should be re-examined to determine the reason for the lack of progress. Was the student placed into an appropriate placement? Did the student receive sufficient support and instruction? If not, then the program or plan for the student needs to be revised. In some cases, it may be determined that the student's lack of progress is due to factors that are not addressed in an English language program, such as in the case of a student with a learning disability. In this case, the student needs to receive appropriate support for the learning disability as part of the English language development plan.

Triangulation as a model for assessing ELLs

The central position of this paper is that the techniques of triangulating data in qualitative research are appropriate to assessing progress of ELLs because English language learning is a complex and multi-varied process that requires multiple perspectives to fully comprehend the process. It is only through multiple modes of assessment that we can identify and account for the full range of English language learning progress of ELLs in elementary

public schools in the U.S. In addition, multiple methods of assessment allow students the opportunity to demonstrate their knowledge in ways that any one single assessment, especially a standardized test, might not capture. Furthermore, the use of multiple modes of assessment allows students to show learning and to receive comprehensive feedback to improve the quality of their learning as part of the process of assessment. The “triangulated data” approach to assessment, through the use of multiple methods of assessing student progress, promotes equal opportunities for ELLs to progress and develop in both the ESL and the mainstream classroom. Finally, the “triangulated data” approach, as is the case in the use of multiple modes of assessment, encourages improvements in teaching to support each student’s learning. (Smith, Teemant, and Pinnegar, 2004, p. 43.)

References

- Brannon, J. (Ed.). (1992). *Mixing methods: qualitative and quantitative research*. Alershot: Avebury.
- Brindley, G. (1998). Assessing listening abilities. *Annual Review of Applied Linguistics*, 18, 171-91.
- Brindley, G., & Slatyer, H. (2002). Exploring task difficulty in esl listening assessment. *Language Testing*, 19, 369-394.
- Buck, G. (2001). *Assessing listening*. Cambridge: Cambridge University Press.
- Cresswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Cummins, J. (1979). Cognitive/academic language proficiency, linguistic independence, the optimum age question and some other matters. *Working papers on Bilingualism*, 19, 121-129.
- Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy*. Austin, Tx: Pro-ed.
- Denzin, N.K. (1979) *The Research Act: A theoretical introduction to sociological methods* (2nd ed.). New York: McGraw Hill.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research*. Thousand Oaks: Sage.
- Dunkel, P., Henning, G. and Chaudron, C. (1993). The assessment of a listening comprehension construct: A tentative model for test specification and development. *Modern Language Journal* 77, 180-191.
- Fielding, N. G., & Fielding, J. L. (1986). *Linking data: Qualitative and quantitative methods in Social Research*. Beverly Hills, Ca: Sage.

- Flowerdew, J. (1994). Research of relevance to second language lecture comprehension – an overview. In Flowerdew, J., editor. *Academic listening: Research perspectives*. Cambridge: Cambridge University Press.
- Freedle, R. and Kostin, I. (1996). *The prediction of TOEFL listening comprehension item difficulty for minimum passages: implications for construct validity*. TOEFL Research Report, 56. Princeton, NJ: Educational Testing Service.
- Henning, G. (1991). *A study of the effects of variation of short-term memory load, reading response length, and processing hierarchy on TOEFL listening comprehension item performance*. Princeton, NJ: Educational Testing Service.
- Jensen, C., Hansen, C., Green, S., and Akey, T. (1997). An investigation of item difficulty incorporating the structure of listening rest: a hierarchical linear modeling analysis. In Huhta, A., Kohonen, V., Kurki-Suonio, L. and Luoma, S., editors, *Current developments and alternatives in language assessment*. Jyväskylä: University of Jyväskylä, 151-64.
- Kidder, L. H., & Fine, M. (1987). Qualitative and quantitative methods: When stories converge. *New Directions for Program Evaluation*, 35, 57-75.
- Lam, T. C. M. (1993). Testability: A critical issue in testing language minority students with standardized achievement tests. *Measurement and Evaluation in Counseling and Development*, 26, 179-191.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Mason, J. (1994). Linking qualitative and quantitative data analysis. In A. Berman, & R. G. Burgess (Eds.), *Analyzing qualitative data* (pp. 89-110). London: Routledge.
- Miles, M. B. & Huberman, A. .M. (1994). *Qualitative data analysis*. Thousand Oaks: Sage.
- Nissan, S., DeVincenzi, F. and Tang, K. L. (1996). *An analysis of factors affecting the difficulty of dialogue items in TOEFL listening comprehension*. Princeton, NJ: Educational Testing Service.

- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.
- Perlesz, A. & Lindsay, J. (2003). Methodological triangulation in researching families: Making sense of dissonant data. *International Journal of Social Research Methodology*, 6, 25-40.
- Rost, M. (1990). *Listening in language learning*. London: Longman.
- Rubin, J. (1994). A review of second language listening comprehension research. *Modern Language Journal*, 78, 199-221.
- Smith, D. (2000). Rater judgments in the direct assessment of competency-based second language writing ability. In G. Brindley (Ed.), *Studies in immigrant English language assessment* (pp. 159-189). Sydney: National Center for English Language Teaching and research, Macquarie University.
- Smith, M. E., Teemant, A., & Pinnegar, S. (2004). Principles and practices of sociocultural assessment: Foundations for effective strategies for linguistically diverse classrooms. *Multicultural Perspectives*, 6, 38-46.
- Stansfield, C. W. (1994). Developments in foreign language testing and instruction: A national perspective. In C. R. Hancock (Ed.), *Teaching, testing, and assessment: Making the connection* (pp. 43-68). Lincolnwood, IL: National Textbook Company.
- Wiggins, G. & McTighe, J. (2005). *Understanding by Design* (2nd Ed.). Washington, D.C.: ASCD.
- Wigglesworth, G. (2000). Issues in the development of oral tasks for competency-based assessments of second language performance. In G. Brindley (Ed.), *Studies in immigrant English language assessment* (pp. 81-124). Sydney: National Centre for English Language Teaching and Research, Macquarie University.