Research-Informed Teaching in Bilingual Education: Does It Happen? How Does It Help?

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Abstract

This article summarizes a study that investigated research-to-practice linkages in bilingual education to demonstrate that such efforts do exist and to examine how these linkages can be improved and continued. The study focused on Natural Approach theory and research because knowledge of second language acquisition processes has been considered among the most enlightening and useful to teachers in the field of bilingual education. The author's intent here is to demonstrate how the translation of research to practice can occur, to show how teachers' perceptions about research influence their use of research, and, most importantly, to show that research and theory in bilingual education can lead to tailor-made teaching strategies for second language learners. In providing this summary the author invites the reader to an in-depth examination of the study in which examples of use of Natural Approach Teaching Model and other insights about research-to-practice linkages are provided.

The conventional view in education is that research, by and large, does not inform teachers' practice and that teachers—including bilingual education and English as a Second Language (ESL) teachers—generally are not concerned about this. But, a more careful examination of this issue shows that bilingual education and ESL teachers *do* care. In fact, they often are frustrated at their inability to link research and practice (Solis, 1989). This frustration seems to be particularly keen in those who share the urgency to serve the growing population of limited English proficient (LEP) students.

Perceptions of Bilingual Education Teachers

Among researchers and program planners there is increasing confidence in the quality and relevance of available research, and there is an evident desire to see it applied more broadly to improve the practice of bilingual instruction (García, 1992; Hakuta & Snow, 1986; Rivera & Zehler, 1990). Such improvement becomes more urgent as numbers of LEP students increase and statistics on their educational progress continue to show lagging growth. Consequently, the concern for improving research use and the quality of research itself is especially focused on teachers' application of research.

Teachers hear about research in university classes, in staff development workshops, and in the conferences and seminars they attend. For more than 10 years, they have been especially tuned to second language acquisition

research and its implications. Although they learn about research, many teachers admit to having only vague notions about how they can make their practice a research-based endeavor despite their students' failure to respond to traditional practices. The teachers' lack of expertise to link research and practice and their students' continued lack of academic success when coupled with feelings (perceptions) that their views on educational issues are not valued by superiors, or that evaluations of their professional performance are not up to par, contribute greatly to teacher burnout (IDRA, 1992; Solis, 1989).

One solution to counter teacher burnout has been to change teachers' perceptions about research and its value (Beyer & Trice, 1982; Rothman, 1980). Another has been to design concrete strategies to translate findings into practice (Calderón, 1986; Joyce & Showers, 1980). This task is one that researchers alone have not been able or willing to do without the help of practitioners (Viadero, 1994).

A particular effort of a group of bilingual education researchers and practitioners is documented in a 1989 study, *Use of the Natural Approach Teaching Model: Application of Second Language Acquisition Research By Teachers of Limited English Proficient Students* (Solis, 1989; also in Calderón, 1986; 1988). This investigation revealed several interesting insights about research in bilingual education, how teachers perceived and used it, and how these endeavors affected their outlook toward their practice. The results suggest that helping bilingual education professionals become research-informed teachers can, among other things, invigorate and encourage them to continue the important task of teaching the LEP population.

The Research

The purpose of the study was to investigate research-to-practice linkages in bilingual education, to demonstrate that such efforts do exist, and to examine how these can be improved and continued. It focused on the Natural Approach theory and research as espoused by Krashen and Terrell (1983) because knowledge of second language acquisition processes has been considered among the most enlightening to the field. The general view is that: (a) second language acquisition theory can lead to tailor-made teaching strategies for second language learners, which are (b) different than those used with monolinguals, and that (c) this is what educators need to make their teaching responsive to second language learners (Larsen-Freeman, 1986; Brown, 1994).

The Site

An appropriate setting for studying research use is one where there is discussion of how research might be used and where there are assertive, definitive steps being taken to apply research (Rothman, 1980). The setting for this study was California, in a staff development project conceptualized

and carried out by the state department of education, a university, and school administrators of bilingual education and ESL programs. The project provided specific training and guidance to help teachers implement research-based innovations including the Natural Approach Teaching Model (Calderón, 1986; MTTI, 1986).

The criteria for selecting schools included access to bilingual education and second language acquisition research, special efforts to encourage its application in programs for LEP students, and documented evidence of application activities in which bilingual and ESL teachers were involved. This led ultimately to the selection of 13 teachers of bilingual education and ESL, teaching in elementary and secondary levels in rural and urban areas. Collectively, they taught students of various ethnic backgrounds in grades Kindergarten through 12. Many of the students had low levels of English proficiency.

Translation of Research to Practice

The first component in the study was to create new or link existing teaching strategies, specifically Natural Approach theory. For example, given the theoretical statement, "During acquisition of the second language, the learner goes through a silent period during which time he is listening only to become familiar with the rules of the language," the corresponding teaching strategy would be Total Physical Response (TPR). With the theoretical statement, "The acquisition of the second language occurs best in natural settings where the learner has opportunity to discover his own errors in language use," the corresponding teaching strategy would be Indirect Error Correction (Solis, 1989).

These strategies were compiled into the "Natural Approach Teaching Model." The staff development program, also a research-based model, embraced a specific approach to the structure and delivery of training (Joyce & Showers, 1980). Specifically, there were five components of the training model. The components included (a) presentation of the teaching model's research and theory, (b) modeling and demonstration of the use of the strategies, (c) practice in using the strategies of the model at the training site, (d) practice in using the model in the classroom, and (e) peer coaching.

The timeframe for implementation of the Natural Approach model was three years. The cycle included 12 to 15 days of training per year, beginning with one week during the summer, followed by two-day sessions during the school year. This training included four days of theory and research, application of the theory between sessions, observations of application by other teachers, and feedback and guidance to each other. Follow-up sessions were scheduled after the three-year cycle was completed (Calderón, 1986).

Teachers' Perceptions about the Theory

A second component of the study was to examine the teachers' perceptions regarding research as these perceptions are critical factors impacting application of research (Rothman, 1980). Teachers were asked to rate two items including:

1. their exposure to the theory ("a lot" "sufficient" "a little") and

2. their level of research knowledge ("strong" "moderate" "weak").

Results showed that teachers generally had "a lot" of exposure to theory and at least "moderate" levels of research knowledge (see Table 1).

A follow-up interview, the *Research Knowledge and Attitude Interview*, asked teachers' views on three indicators of research relevance: clarity, conformity, and impact (Solis, 1988). *Clarity* indicates the degree to which the research message was clear, i.e., understood. *Conformity* indicates the degree of agreement with the research message. *Impact* indicates the degree to which the research information influenced, or helped, teaching (see Table 1).

Table 1: Exposure to Theory & Research Knowledge Ratings

Teacher #	Theory Exposure	Research Knowledge
1	A lot	Moderate
2	A lot	Moderate
3	A lot	No Response
4	A lot	Weak-Moderate
5	A lot	Moderate-Strong
6	A lot	Moderate-Strong
7	Sufficient	Moderate-Strong
8	Sufficient	No Response
9	A lot	Moderate-Strong
10	Sufficient	Weak-Moderate
11	A lot	Moderate-Strong
12	A little	Weak-Moderate
13	A lot	Moderate

The participants' comments about clarity, conformity, and usefulness substantiated the literature on teacher use of research (Rothman, 1980; Siegel, 1984; Walberg & Genova, 1983). The comments conveyed a sense that research has had an impact on their teaching (see Table 2).

Overall, the survey and interview results showed that:

- only one teacher indicated the relevance was weak to moderate;

- two teachers indicated the relevance was moderate;

- seven indicated the relevance to be moderate to strong; and

- three indicated a strong relevance.

In their comments, some teachers shared that their clarity and conformity were enhanced because they happened to share a similar philosophy of second language acquisition while others experienced them as a result of learning a second language or observing someone learning a second language. The process of most value for all, however, was their exposure to the research findings in the staff development program (Solis, 1988).

Teachers' Application of the Theory

A third component of the study was to determine how knowledge and perception of relevance factors related to use of research-based strategies. Teachers' use was specifically analyzed and assigned to a particular level of use—"high use," "average use," "average-low use," and "low use" (Solis, 1989). The picture that emerged showed that research knowledge and relevance yielded use at various levels of effectiveness: six teachers were "high" users of the Natural Approach, while three were "average" users and four were "low" users. These findings warranted continued search for other influencing factors but also provided information on the effects that this effort was having on teachers. Specifically, these teachers thought that research was important to their teaching, and, most significantly, they were gratified by the involvement in research-based teaching.

Teachers' Outlook about Their Teaching

Demographic and interview data provided a history of the teachers' work with LEP students and yielded certain impressions. Teachers ranging from one to 20 years of experience, who worked with grades Kindergarten through 12, in bilingual education and ESL programs, in rural and urban areas, expressed in a variety of ways how their preparation through this specialized training and their involvement in research-informed teaching enlightened and encouraged them. They became more confident in their teaching. They developed a desire to help others and a desire to expand personally and professionally. They were motivated to read research, and they were motivated toward higher education (see Table 2).

Table 2

Motivation Statements

Confidence in teaching
• I am both professionally and personally motivated by the Natural Approach as it had been extremely useful and instrumental in helping me imporove the education of young Mexican American children who I know and for many years I've been trying to help.
• I think I'm now an intuitive, experienced, and successful user of the Natural Approach.
• The research helped me justify my teaching to teachers who don't believe in second language teaching.
• It (Natural Approach) has made my teaching a much easier task.
• The research information has changed my way of thinking about ESL teaching. I have changed my teaching.
• I'm now an experienced user of the Natural Approach. I am especially good at creating a positive learning environment, teaching informally and helping students feel at ease.
• Because the Natural Approach made a great deal of sense, I was encouraged to try new methods.
• Research on the Natural Approach had a great impact for me as a new teacher. It inspired me to try out the suggested strategies. As I use them, I discover that they work adn this makes the Natural Approach even more relevant to my work.

Desire to help others
• In about a year I want to be helping others (through training) to learn about the Natural Approach.

Desire for personal and professional advancement
• I was immediately attracted to the research. It has made me think of my own language learning experiences. I plan to continue going to more workshops and read more books on the Natural Approach.
• Second language acquisition research is a very interesting topic. I plan to read more on how it relates to adolescents.

Motivation to read research
• I will (now) study any research because it is useful and relevant.
• I want to read more books on the Natural Approach.
• I plan to read more on how it relates to adolescents.

Motivation to higher education
• It motivated me to get my master's degree in applied linguistics.
• I have plans to work on my master's in linguistics.

Conclusion

Bilingual education and ESL teachers share the need and interest to make their teaching a rigorous, research-informed activity. However, because they often receive little guidance to do it, the pressure to meet expectations is a source of teacher discouragement and frustration. A research-to-practice effort in educating second language learners can, as in this case, reverse such situations for the best. Testimonies from teachers illustrate how the assistance they received in linking research to practice minimized their frustration as they became confident in their abilities to provide relevant instruction to their students. Being involved in research-informed teaching not only enhances bilingual education but also serves to renew teachers' outlook about their practice.

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