A discussion of classroom research proposes that classroom-oriented, practical research or evaluation projects are feasible for the language teacher and explains several types of research that might be undertaken. First, it outlines practical and relatively simple ways to examine classroom activity more objectively, such as videotaping for analysis of interactions, discourse, physical movement, time use, and at-task behavior, or analysis of test design. Second, it summarizes five general types of research designs, the techniques used in each, and the kinds of research questions that might be addressed. Third, it focuses on one type of research (single subject design) that has potential for classroom use. The research types include ethnographic, descriptive, correlational, experimental, and case study. (MSE)
Recently, there has been interest displayed in the role of teacher as researcher and self-evaluator. However, there has been little direction available to guide teachers who might be interested in doing their own classroom-oriented, practical research or evaluation. This paper, a synopsis of a presentation at TRI-TESOL 85, is an attempt to make the idea of research more plausible to teachers; to explain various types of research teachers might use and give examples of simple classroom research that might be undertaken. To that end the presentation was divided into three parts; 1) practical and relatively simple things we can do to examine our classes more objectively, 2) a short description of types of research that are used in the behavioral sciences, and 3) focus on one type of research (single subject design) that has potential for classroom use.

First we need to look at two definitions of research. Academic research is defined as the process of discovering the relationships between two or more variables. It requires careful, disciplined procedures. However, the classroom teacher has usually neither the time nor the money to engage in rigidly designed, carefully controlled research. Rather we can think in terms of Webster's definition of research, "a studious inquiry, examination, or investigation," in our case investigation into what is really going on in our classrooms.

We in the field of ESL tend to operate under an "it works"
mentality. We try something in our classes and then decide, often based on rather nebulous results or feelings ("the students had a good time"), whether "it works" or not. We tell a friend about it or present it at a conference where other teachers think it's a good idea (or not) and try it in their classes. At the end of such trials, we are apt to claim that "the students" are "able to do" this or that. Who are "the students?" What does "able to do" mean?

There is still much unknown about learning, but one thing is known; classes do not learn, individuals do. "It works" leaves the teacher at the class level. It often means that two or three students do the thing well, three do it fairly well, another three-five do it better than before, three-five sort of get the idea, and three-five can't do it at all (but their attention/attendance wasn't good anyway, so they don't count). We need to look more closely into the results of our teaching. In fact, we need to look more closely at our teaching, at ourselves. Why do various techniques "work" for some teachers and not others, with some classes and not others?

There are some excellent ways of looking at our own classrooms to discover what's happening there. Most of them are techniques which have long been used in the field of education (or at least talked about) and which ESL teachers in the public schools are, no doubt, already familiar with.
LOOKING AT THE CLASSROOM

How many of us have seen, or heard, ourselves teach on video or audio tape? Probably not many. If we have, what information was received from the experience and how was it used? Were behavior patterns affected? Probably not much. When viewing ourselves on video we usually become aware of mannerisms, clothes, and verbal tics (okay, you know), but seldom are able to see our own problems of substance. These must be pointed out by a "neutral other." Therefore, for such data to be effective we need to monitor it with a trusted peer or supervisor. And it cannot be done in a "Let's see what you've done wrong" spirit. This approach merely raises defenses and blocks useful communication. Before doing the monitoring both parties should know something about peer coaching or clinical supervision techniques. See Acheson and Gall, 1980, for a good description of these. A first step, then, is to look at ourselves, objectively.

A second step could be to look at the classroom. It is possible to set up a camera to video tape the whole class, or to ask an observer to come in and take notes or make charts showing student-teacher verbal interactions, student-student interactions, question-answer patterns, physical movement, use of time, at-task behavior, etc. It is also possible to analyze discourse, looking at the same types of things, as well as teacher directions, verbal and non-verbal messages conveyed, etc. For examples of how to do some of the above
see Acheson and Hansen, 1973, and Good and Brophy, 1984.

A third step could be to look at testing. There are some fairly simple procedures for making a test more reliable and valid, from having someone read it in advance to check for errors and confusing questions, to doing an item analysis, to having someone else grade it. Some suggestions for writing and analyzing tests are in Hopkins and Stanley, 1981.

All of the above suggestions are ways of looking more objectively at our classrooms. They are all what I am calling research, or investigation. And looking carefully at classrooms can raise other questions, questions which can stimulate other kinds of research. In contemplating this research, there are two preliminary questions to ask: 1) What do I want to know, and 2) How can I get that information? Because different information is desired for different purposes, there are different types of research.

TYPES OF RESEARCH

Following is a brief summary of five general types of research designs, techniques used in each, and the kind of question that each might answer. For a more detailed explanation see Borg and Gall, 1983.

Ethnographic research is done for the purpose of describing and interpreting cultural behavior. It uses interviews, surveys, observations, and written material, such as diaries, life histories, etc. It might be used to answer the question, "What belief systems are evident in the teaching approaches used by the teachers in our
school?"

**Descriptive research** is done to characterize a sample of students, teachers, school buildings, textbooks, etc. on one or more variables. It uses observation, survey, questionnaires, and interviews. Questions such a design might answer are, "How is classroom space utilized," or "What is the frequency of student initiated verbal interaction?" (This is an excellent design for looking at classrooms.)

**Correlational research** is done to explore relationships between variables and predict scores on one variable from scores on another. It compares subjects in whom a pattern is present with similar subjects in whom it's absent. This kind of research shows relationship, but not cause. It might answer a question like, "Do students who take TOEFL classes do better on the TOEFL exam than those who don't?"

**Experimental research** is done to establish cause-effect relationships between two or more variables. This kind of research limits itself to two variables and is very carefully controlled, usually in a laboratory. It is difficult and expensive. A question might be, "Does cigarette smoking cause cancer in mice?"

**Single subject or Single case design** is done to determine the effect of an intervention on one subject or a small group of subjects. It is particularly useful in the social and biological sciences. It uses such techniques as visual inspection, replication, marking
behavior over time, and social validation. It might be used to answer a question such as, "Does this instructional program I've developed change the spelling behavior of the two students in my class who have serious spelling problems?"

It is this last design that I feel has interesting potential for the ESL classroom. It was originally developed for the purpose of gradually changing behavior patterns and could be used effectively in dealing with spelling, handwriting, subject-verb agreement, and other chronic problems in the ESL classroom.

In summary, the message is that research in the classroom is both possible and desirable. And it is only through research that we will be able to see the objective reality of our classes, thereby establishing a foundation for substantial rather than merely facile improvement.
Bibliography


