

Action Research: Techniques for Collecting Data Through Surveys and Interviews

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Almost two decades ago we began conducting short, simple research projects with our ESL classes. We asked our students questions that related to what they thought we, the teachers, were doing right, what they felt provided them with optimal language learning experiences, what activities they liked best, and how the total curriculum was meeting their needs. Like many teachers involved in classroom observation and data collection at that time, we did not view our activities as research, nor did we believe that our work was particularly significant for the language teaching profession. Rather, we conducted this research for more personal reasons: We wanted to improve our classes and curricula, we needed to justify our classes and classroom activities to our superiors, and we wanted to learn more about ourselves as teachers. We did not know it then, but we were involved in action research,

... a form of self-reflective inquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of the practices, and the situations in which these practices are carried out. (Carr & Kemmis, 1985, p. 220)

According to Huberman (1992), action research is a fancy way of saying, "Let's study what's happening in our classrooms and decide if we can make them better places by changing what and how we teach and how we relate to students and the community" (p. 1). As Carr and Kemmis (1985)

point out, action research is educational research that is essentially practical in nature. It deals with finding solutions to practical problems that, unlike theoretical problems, must be resolved by some sort of action by those involved. We, as teachers, must become involved in finding solutions to our own problems by collecting data from our classrooms.

The information we have collected from our classroom research efforts has helped resolve some practical problems for us. It has helped us improve our instruction, understand ourselves as teachers and our students as learners, and strengthen our curricula. We would like to see more teachers participating in action research projects. Like Nunan (1989), we are not suggesting that teachers become academic researchers in addition to the many other things they do, but effective curriculum research and development can and should be carried out by those individuals most directly involved in classroom activities – teachers.

Action research has a number of other aspects which recommend it to classroom teachers. As Long (1983) points out, classroom-centered action research can provide a great deal of useful information about how language instruction is actually carried out. This is often very different from someone's idea about how it should be carried out or how people imagine it is carried out. Second, classroom-centered action research promotes reflective inquiry which, according to Nunan (1989) and Freeman (1989), should be the logical end point of professional self-development. Lange (1990) has noted that such inquiry helps teachers resist the temptation to jump on various bandwagons and allows us to formulate our own ideas about the process of language teaching and learning. It is these reasons, as well as our belief that our experiences with data collection techniques will be useful to other second language teachers, that motivate this paper.

Data Collection

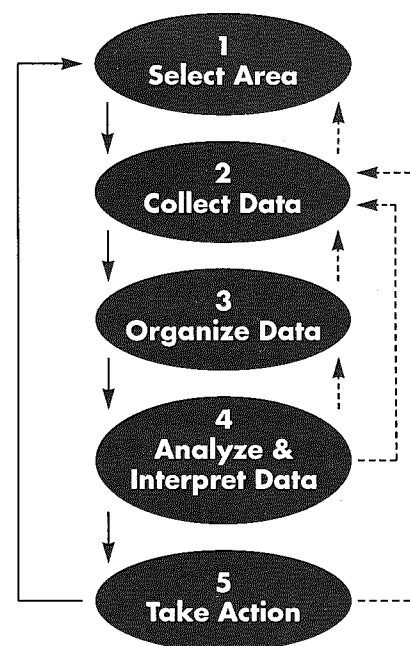
Like most action researchers (Calhoun, 1991; Calhoun, 1994; Glickman, 1990), we see research projects moving through five phases of inquiry. Figure 1 shows the five phases of the action research cycle as it is typically characterized in the literature.

In this paper, we focus primarily on Phase 2 of this action research cycle, data collection, and share four techniques for eliciting different types of information from students. These techniques have been used to collect data about the following topics:

A. Curriculum

1. overall program
2. lesson content
3. classroom procedures

Figure 1.
Phases of action research



B. Students

1. language learning experience
2. student background
3. goals and future plans
4. student expectations
5. social experience outside the classroom

C. Teachers

1. teacher effectiveness
2. teacher self-evaluation

D. Methods and materials

1. specific teaching methods
2. materials
3. classroom interaction patterns

These topics, or themes (Richards & Lockhart, 1994), are general categories that we have identified and worked with in our classrooms and are in no way meant to be exhaustive. General categories can lead to more specific topics. For example, under the category of language learning experiences, a teacher might want to investigate students' ideas about teaching materials, the degree to which students enjoy their classroom experiences, the amount of teacher talk, teacher-student talk versus student-student talk, or group work experiences. Under the category of social experiences outside of class, a teacher might seek more information about language students' speaking opportunities outside of class, the activities they most often pursue, how often they watch television or attend movies, and so forth.

When we first began collecting information in our classes, we usually knew what topics we wanted to investigate, but we sometimes had difficulty in deciding how to collect the data. We experimented by pursuing small case studies, personally observing our classes, using audio and video recordings, taking field notes, analyzing teacher and student journals and diaries, and conducting surveys and interviews.

With personal observations, we found it almost impossible to be a teacher and a careful observer at the same time. The technique interrupted the flow of the lesson. The same was true for taking field notes. We also experimented with audio and video techniques. Because students were unaccustomed to being audio- and videotaped, we found the techniques more obtrusive than the others we tried.

Student journals and diaries also made their way into our data gathering techniques. Because many of our students were absolute beginners, we found ourselves trying to guess at what the students were trying to say in free-writing exercises. Once again, we found data analysis to be far more time consuming than we could afford it to be given our many other responsibilities as teachers and program administrators.

After a period of trial and error with these techniques, we realized that surveys and interviews met our needs more completely. They seemed to elicit data that was more easily organized, analyzed, and interpreted than other techniques we tried. In this paper, we therefore focus on collecting data from students using these two techniques.

Data Collection Techniques

We have developed four survey and interview techniques for collecting action research data: limited choice, unfinished sentences, open-ended questions, and individual interviews. These techniques are not only efficient, they are also easy and inexpensive to administer quickly.

Limited choice. In this technique, students complete sentences by simply marking their choices on "check one" scales or continua. Because the questions are limited, we can concentrate on one topic and the students are not overburdened with the task. Therefore, this technique works well with beginning as well as multilevel language classes. Because response choices are given, scoring is quite straightforward, which allows the teacher to survey many students on a wide range of topics without feeling overwhelmed by large amounts of data.

This technique is particularly useful for making comparisons. For example, we looked at how students perceived their own performances in comparison with teacher perceptions (see Sample 1: Number scales). Each student completes an evaluation; at the same time, the teacher completes an evaluation for each student. We discovered that teacher and student perceptions were more similar when looking at those students whom the teachers rated the highest. This process helped us focus on the learners who had the most difficulty in class. Do they know how to self-evaluate? Do they understand how they are doing in relation to the goals of the class or how they are progressing in the target language? We also use the limited choice technique when we want to concentrate on one specific area in a class, such as working with partners, or when we want information about one part of the curriculum, such as our conversation and speaking courses. The limited choice technique allows us to control the topics as well as the kind and amount of feedback we receive.

We experimented using word scales, the Likert scale with five to eight choices, a continuum using 14 Xs, and a multiple choice technique. We have found word scales to be a helpful way to review vocabulary as well as an easy way to make the results available to the students (e.g., *The students in this class usually come to school*). The Likert scale is easy to tabulate, but students have a tendency to number themselves (e.g., *I'm a 2; She's a 5*). We sometimes vary the scale to eight choices, but we don't want to use numbers every time. Continua using Xs get students away from assigning numbers to themselves and allow more fine-tuning. They are especially helpful when you have a large class that you are trying to group by self-determined ability. The multiple choice or check one technique allows for more information to be included. Here are some examples of limited choice surveys:

SAMPLE 4: Check one scales

Student self-evaluation

Name _____

Date _____

DIRECTIONS: *Put a check next to the statements that best apply.*

I feel that ...

- I don't have enough time or space to study at home.
- I am not very interested in the class work of this past week.
- the work is too difficult for me at this time.
- the work was too easy, and I was bored.

I would like to ...

- do something different.
- do this work over again.
- do more of the same kind of work.

In this class I like to ...

- read. listen to the tapes.
- have conversations. practice spelling.
- listen to the teacher explain. practice pronunciation.
- sing. work with a partner.
- write examples. do line ups and scrambles.

Unfinished Sentences. We got the idea for this survey from a party game: "If someone gave me \$10,000 right now, I would ..." We applied the idea of unfinished sentences to our ESL classrooms:

If I were the teacher I would ...

One classroom activity I really like to do is ...

Today, I learned ...

Depending on the topic we are surveying, such as personal reactions to classroom activities, or when we want to stretch our students, help them go beyond their present level, or foster creativity, we often prefer the unfinished sentence technique to limited choice. The teacher can still control the response topics, but the students are freer to respond with their own ideas within the limited categories that the teacher has chosen. The technique can still be used in multilevel classes or with low-level students. The scor-

ing may be a bit more time consuming than the limited choice technique, but it is not overwhelming for the teacher. Here is an example of an unfinished sentence survey:

SAMPLE 1: Student course evaluation

Name _____

Date _____

DIRECTIONS: *Complete the sentences.*

1. The thing that was the hardest for me this week was _____

2. One thing I learned this week was _____

3. One activity we did in class that I really liked was _____

4. I didn't like _____

5. I would like to _____

6. The hardest thing about working in a group is _____

Open-ended questions. (*What was your most difficult ESL class? Why? What would you like to change about the ESL program?*) Open-ended questions work well in surveys of classes or program curricula for more advanced level students. With this technique, students are asked to write down their own ideas or opinions in response to open-ended questions. They are asked to do this anonymously. Because this technique allows for more variety in responses, the data analysis takes longer; therefore, the

number of questions should be limited. Here are some examples of open-ended question surveys:

SAMPLE 1: Program evaluation for mainstream students

Date _____

DIRECTIONS: We want to know what you think about your classes, your teachers, and the language program in general. Please give short answers to each of the following questions. Do not put your name on this paper.

1. Do you feel that your English skills improved as a result of this English program? _____

2. What is one thing you could have done to improve your English skills faster? _____

3. If you could have dropped one class from your ESL program, which one would you have dropped? _____

4. What would you like to change about this ESL program? _____

5. Do you feel this ESL program helped you meet your academic needs? _____

SAMPLE 2: Course evaluation for continuing students

Date _____

DIRECTIONS: We want to know what you think about your classes, your teachers, and the language program in general. On a separate piece of paper, please give short answers to each of the following questions. Do not put your name on this paper.

1. Which was your most difficult ESL class? Why? _____

2. Which was your easiest class? Why? _____

3. Which is your most interesting class? Why? _____

4. Which class was least interesting? Why? _____

5. What activities did you prefer in your ESL classes? _____

6. What activities were most helpful for improving your English? _____

7. What activities were not helpful for improving your English? _____

SAMPLE 3: Out-of-class experience

Date _____

DIRECTIONS: *We want to know what you think about your classes, your teachers, and the language program in general. Please give short answers to each of the following questions. Do not put your name on this paper.*

1. What did you do outside of class that was most helpful for improving your English? _____

2. How many hours a day do you speak English socially out of school? Please briefly describe where and when you speak English socially out of school. _____

3. In what situation do you use English the most outside of school? _____

Individual interviews. Depending on the students and their literacy skills, we have found that short, individual oral interviews may work better than written forms. For example, adult nonacademic students are often able to communicate their ideas better orally than in writing and may be able to give you more useful information this way. Students are given the questions beforehand, in writing or orally, so that they have sufficient time to prepare thoughtful answers. Oral interviews can be structured with limited choice, unfinished sentence, continuum, or open ended questions. The example below uses number scales to elicit both teacher and self-evaluation data. Questions that elicit short, specific answers are the most useful. It is also very helpful to record the interviews on audio cassette for analysis at a later time. In this way, we can participate in the interview with the students; we do not interrupt the interview by taking notes. Students feel less uncomfortable with the tape than they do when the teacher is busy taking notes, not concentrating on the discussion or not maintaining eye contact.

SAMPLE 1: Number scales for comparison

Self-evaluation/Teacher evaluation

Name _____

Date _____

1 = absolutely not 8 = absolutely yes

DIRECTIONS: *Evaluate your own performance and then evaluate the teacher's role in helping you to achieve your goal by circling the appropriate number under each column.*

	Student	Teacher
I always do my best in this class.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I study outside of class.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I ask for help when I need it.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I have made an extra effort to reach goals that are important to me.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I am satisfied with my progress.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I am working well with my group.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I try to contact native speakers outside of class.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I am improving my speaking ability.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I am improving my writing ability.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
I am improving my listening ability.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
My reading is improving.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8

Looking at the Data

In looking at student responses to these surveys and interviews, we have found it helpful to pay careful attention to the following two areas.

1. *Objectivity*. There is built-in bias in every survey and questioning technique. We hear and encourage remarks from our students that fit with our beliefs, thus reinforcing our belief systems without even realizing it. Students may say only what they think the teachers want them to say. Furthermore, students themselves may have certain personal and cultural expectations and a limited set of concepts for talking about teaching and learning. Good action researchers must be aware of these preconceptions and control for them by varying the techniques used to survey and question students.

2. *Sampling*. We listen to the students and form our ideas based on what they have to say, but not all of the students talk to us. We have to make certain that we are not listening only to a vocal few. Teacher researchers can control the sample size by collecting information over time, collecting information from all students, and using and analyzing all results. The full range of student beliefs needs to be accurately represented.

While these data collection techniques are not exhaustive, they have provided us with important tools for gathering the information we deem important in our classrooms. One goal we had was to discover which activities students preferred and found most helpful and to include students preferences more often in our lesson planning. We learned that students often preferred language-learning activities that we did not believe were the most helpful. We made a commitment to include the activities students preferred more often in our lessons and to track the results. This small instructional change brought about a change in student attitude as a greater number of students felt they were improving.

We also wanted to see more student input into the language program curriculum. By analyzing the data from the open-ended questions, we discovered that students wanted more opportunities to interact with Americans. This led us to add an informal conversation class to the program. Students also indicated they wanted more advanced grammar study. We also added a grammar class at the advanced level and began tracking exit scores. Even though the increase in the mean of the exit scores was not significant over the quarters immediately following the inclusion of the advanced grammar course, students always indicated in their surveys that the grammar class was helping them.

From our experiences in data collection, we have discovered that there are many different ways to learn, both in formal and informal sessions. Being action researchers in our language classrooms has given us the opportunity to learn by observing our own classrooms and by reflecting on our

own practice. All classroom teachers can and should do this kind of research, but the process should not stop there. By sharing observations, knowledge, and experience with colleagues in school settings and at professional conferences, and by writing papers such as this one, we can all make important contributions to the profession about our knowledge of the process of teaching and learning languages. ■

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