APPENDIX 4

OBSERVATION MANUAL

Many education courses now require or recommend field observation activities. This Appendix will help you sharpen and focus your field observation skills. Accurate data collection and thoughtful reflection about what you see can give you new insights into life in the classroom and the process of teaching.

General Observation Guidelines

While the field experience is an integral part of virtually all teacher preparation programs, the specific design and approach of school observation varies greatly. In some teacher education programs, the field experience is a component of the Introduction to Teaching Course or the Foundations of Education Course; in others, it is a separate course. In still others, it has become a continuous strand that links most, if not all, education courses.

Whatever approach your college or university provides, this experience, if used well, can offer rich insight into the real world of teaching and schools and can help answer your concerns and questions about teaching as a career. Unfortunately, poorly structured school visits quickly deteriorate into a vacuous waste of time. This Appendix, along with the *Inter-missions*, provide the structure and focus to ensure accurate observation and thoughtful reflection about the information you gather. But that is only half—perhaps less than half—of the formula needed for successful school observation. The other central ingredient is you. How you approach the experience, and what you do or do not do with the information you gather, ultimately will determine how well your field experience will work for you.

John Dewey, perhaps America's most famous educator, wrote extensively about *reflective thinking,* which he defined as avoiding routine and impulsive behaviors in favor of taking the time to give serious consideration to our actions. According to Dewey, the intelligent person thinks before he or she acts, and action becomes deliberate and intentional. If you want to glean knowledge and insight from your field experience, your observations must be careful, analytical, and deliberate. Once your observations have been made, you will need to consider carefully what you have seen before you formulate conclusions about life in schools.

Identifying Your Goals and Concerns

The reflective field experience structured in this Appendix and in the *Inter-missions* will encourage you not only to see what schools do but also to consider what they might do differently. Although each student approaches the field experience with a unique personal history and set of expectations, it is useful to think about and prioritize these perceptions and concerns before you begin. Take a minute and, on a separate sheet of paper or in your journal or notebook, write a brief list of your goals as you prepare for your field experience. In short, what information and insight do you want to get out of your field experience? After you have written down your goals, consider the following questions. Are your goals clear, or do you need to give them more thought? Are some of these goals more important than others? (You may want to rank them in order of priority.) Do your goals fall into one or two broad categories, or are they more diverse? This Appendix structures your field experiences into several categories: the setting, the teacher, the students, and the curriculum. Have you considered all these areas in your goals—or, like many beginning teachers, have you omitted one or more? Which areas have you omitted? Why? Since these are the key areas your field experience should emphasize, take a few moments before you arrive at your observation site and consider what you want to learn about the following components.

Setting. What is the socioeconomic status of the community? What are the community's values concerning education generally and the schools in particular? Are parents involved in the schools? What is the academic and social culture of the school? What is important in this community and in this school? How would you describe the physical environment of the community, the school, and the

classroom? How are the classrooms organized to promote learning?

Teaching. Why do people enter teaching? What do they like about teaching? Why do people leave teaching? What are the responsibilities of teachers? How do you become an effective teacher? What successful teaching skills are used in this school? What needs to be improved? Do you like teaching? Are you good at it? How can you apply what you learn in your education courses to your own teaching?

Students. As you prepare for a teaching career, your concerns and interests are naturally focused on the teaching aspect of the classroom and whether you will like teaching and be good at it. But teaching does not exist in isolation; key to the context of teaching are the students. Who are the learners and what are their interests? What motivates students to learn? What are the barriers? How can work be individualized? How can discipline problems be handled? avoided? Which age group and which type of students do you prefer to work with?

Curriculum. Students spend approximately 90 percent of their academic time involved in reading textbooks and other curricular materials. Curricular issues that could be addressed in the field experience include the following: What is taught in your school? Is breadth or depth emphasized? Are students responsible for problem solving and critical thinking? Or are drill and rote memorization emphasized? Is adequate time provided for each subject? Is there bias in the curriculum? Which topics are emphasized? omitted? Is the curriculum interesting and motivating? What is the school's policy concerning a core curriculum? Has your college work prepared you to teach the curriculum? How might you present the curriculum differently?

This Appendix introduces each of these areas, providing you with a few sample activities. Working with your instructor and colleagues, you may want to develop and use other data collection activities as well.

Learning How to Observe

Students preparing to be teachers suffer from the handicap of too much familiarity with school. Consequently, they may block out valid and useful insights. Thousands of hours spent behind students' desks inure many to the subtle and not-so-subtle aspects of schooling in the United States. In order to become an effective teacher, you need to erase this past conditioning and reawaken yourself to the realities of school and classroom life. Developing observation skills will sensitize you to these realities and enable you to judge the effectiveness of the various instructional and management practices that teachers and administrators use in dealing with them.

> I sat in class for days wondering what there was to observe. Teachers taught, reprimanded, rewarded while pupils sat at desks squirming, whispering, reading, writing, staring into space, as they had in my own grade school experience, in my practice teaching in a teacher training program, and in the two years of public school teaching I had done before World War II.[1]

So wrote George Spindler, the researcher who is credited with developing educational anthropology as a legitimate field of scholarship. His problem was one that faces any serious observer in an environment that is too familiar. Everything seems trivial and obvious. As Margaret Mead said, "If a fish were to become an anthropologist, the last thing that it would discover would be the water."[2]

Spindler became so frustrated with viewing the commonplace that he almost gave up his research. Education majors who are asked to observe in local elementary and secondary schools face similar problems. Because they find the environment as comfortable and everyday as a worn shoe, they often miss subtle incidents and the underlying significance of events.

Fortunately, Spindler did not give up school-based observations. He interviewed the target teacher he was observing, as well as supervisors and students. He collected autobiographical and psychological information from the teacher, analyzed the teacher's evaluations of his students, and conducted sociograms (i.e., recording popular and isolated students, as well as cliques) to determine students' attitudes toward one another. As a result of careful data collection, Spindler discovered that the target teacher, who at casual glance seemed to treat all students similarly, actually favored white middle- and upper-class students. The teacher was completely unaware of this differential treatment, but the students were readily able to identify the teacher's favorites. If the teacher had known how to observe subtle classroom dynamics, he would have been aware of this disparity. Without the skills of observation,

interpretation, and reflection, the teacher remained ignorant of important elements of the classroom social structure.[3]

Classrooms and schools are complex intellectual, social, personal, and physical environments, where the average teacher has more than one thousand interactions a day, each with different levels and nuances of meaning. In this multifaceted, fast-paced, confusing culture called *school,* it is all too easy to miss much of what you think you "see." But, if you immerse yourself in this culture, observe and record your experiences systematically, then reflect on and interpret what you have seen, you can gain greater insight into how and why teachers and students behave the way they do.

There are many sources for collecting objective data. These include direct observation; document analysis of school mission statements, discipline codes, textbooks, student portfolios, and lesson plans; and interviews with key participants, such as teachers, students, administrators, and parents. Observation followed by reflection will provide crucial data about the realities, frustrations, and rewards of classroom life—information that will help you become a better teacher.

OBSERVATION TECHNIQUES

This Appendix provides you with a variety of *observation techniques* to collect information. You and your instructor may determine to use only a few of these methods—or all six.

Interviewing Depending on the role they play in school, various participants may have different interpretations of and opinions about events. For example, a student's feelings about a pep rally may differ from those of the school principal. Interviews are an excellent method for bringing to light these different perspectives and points of view. Your interviewing protocol may consist of very specific questions ("How many years have you taught in this school?") or questions that are broad and open-ended ("How does this school differ from other elementary schools where you have taught?").

Asking questions that draw the subject out is a challenging skill to master. For example, during an interview you may ask, "Do you enjoy teaching?" If you get a simple "yes" or "no," you will need to ask follow-up, or probing, questions to get more detailed information. Assuring the interviewee that answers will be kept confidential may be helpful in obtaining frank and comprehensive responses.

Whenever possible, audio or video record or take notes during the interview, perhaps just jotting down key phrases if you do not have time to record complete sentences. Later you may find it difficult to remember exactly what the interviewee said, or you may inadvertently distort or rephrase what was said to fit your own preconceived notions of people and events. Although most of us like to think we are objective, our past experiences and our perspectives may cloud our vision.

Questionnaires   Interviews are a good strategy for gathering in-depth information, but time constraints will limit the number of people you can reach. Questionnaires provide the opportunity to gather information from a much larger sample of faculty, staff, or students. You will need to decide what you want to ask and how you want participants to respond. For example, you can ask an open-ended question:

How would you describe the audiovisual equipment in this school? _____

Or you might want to structure your questions so that a particular type of response is generated:

Audiovisual technology is used frequently.
Agree Strongly   Agree   Disagree   Disagree Strongly

You will also need to decide whether you wish respondents to identify themselves or whether questionnaires should be anonymous. Although questionnaires are not stressed in the data collection activities in this manual, they are a good source of information. If you are interested in this method of data collection, discuss how to develop and distribute questionnaires with your course instructor.

Observation Data A much-used technique for capturing, comparing, and analyzing human behavior of all kinds is the *structured observation system.* Community life, school activities, and classroom behaviors can be recorded and evaluated through a coherent set of questions or more sophisticated coding techniques. In fact, a number of these structured observation systems were originally designed for educational research, but they have now found their way into everyday school practice. These instruments measure everything from the kinds of questions teachers ask to the nature of peer-group interaction. One of the earlier and more influential observation instruments is the Flanders Interaction Analysis, which is summarized briefly in Figure 1.

Originally developed as a research tool, Flanders Interaction Analysis became a widely used coding system to analyze and improve teaching skills. This observation system was designed to categorize the type and quantity of verbal dialogue in the classroom and to plot the information on a matrix so that it could be analyzed. The result gave a picture of who was talking in a classroom and the kind of talking that was taking place.

As a result of research with his coding instrument, Flanders uncovered the **two-thirds rule:** About two-thirds of classroom time is devoted to talking. About two-thirds of this time the person talking is the teacher, and two-thirds of the teacher's talk is "direct" (that is, lecturing, giving directions, and controlling students). The two-thirds rule is actually three related two-thirds rules and serves to substantiate that, typically, teachers verbally dominate classrooms.

Some people feel that Flanders' work has underscored the fact that a teacher's verbal domination of the classroom conditions students to become passive and to be dependent on the teacher. It is claimed that this dependency has an adverse effect on student attitudes toward school and student performance in school. Interestingly, Flanders found that when teachers are trained in his observation technique and become aware of the importance of language in the classroom, their verbal monopoly decreases.

To use the Flanders Interaction Analysis, one codes each verbal interaction as one of 10 categories, plots the coded data onto a matrix, and analyzes the matrix. Following are the 10 categories in the Flanders Interaction Analysis Coding Instrument.

Summary of Categories for Interaction Analysis

Indirect Teacher Talk

1. *Accepts feeling*
   Acknowledges student-expressed emotions (feelings) in a nonthreatening manner

2. *Praises or encourages*
   Provides positive reinforcement of student contributions

3. *Accepts or uses ideas of students*
   Clarifies, develops, or refers to student contribution, often nonevaluatively

4. *Asks questions*
   Solicits information or opinion (not rhetorically)

Direct Teacher Talk

5. *Lectures*
   Presents information, opinion, or orientation; perhaps includes rhetorical questions

6. *Gives directions*
   Supplies direction or suggestion with which a student is expected to comply

7. *Criticizes or justifies authority*
   Offers negative evaluation of student contributions or places emphasis on teacher's authoritative position

Student Talk

8. *Student talk—response*
   Gives a response to the teacher's question, usually a predictable answer

9. *Student talk—initiation*
   Initiates a response that is unpredictable or creative in content

10. *Silence or confusion*
    Leaves periods of silence or inaudible verbalization lasting more than 3 seconds

Document Analysis By analyzing the documents, written records, and other classroom and school materials, you can gain important information about how the school works and what is emphasized. For example, does your school have a philosophy or mission statement in which goals are set forward? What policies govern staff and student behavior? Is there a disciplinary policy for students, and are they aware of it? What kinds of textbooks are used, and do teachers supplement texts with additional materials? What kind of report card or evaluation system is in use? What do newspapers and yearbooks tell you about the school's social system? The school's written records should provide an important complement to the data you collect from observing and interviewing.

Note Taking Note taking, a technique borrowed from cultural anthropologists, is one of the most commonly used methods for gathering data. When you first begin observing and taking notes on what you see, you may try to record everything. But, in the hectic, multifaceted school and classroom environment, you will soon discover that it is impossible to capture accurately so many different stimuli at one time. You will need to narrow your focus and target specific aspects of the environment for your data collection and note-taking activities. For example, you may choose to focus on how the curriculum is developed or the nature of leadership exerted by the principal. You may target your activities to record the frequency and quality of teacher questions or the way discipline is handled in the school. In order to select the most important information, you will need to go into the environment with a series of *focusing questions*.

Several focusing questions are included in the data collection activities in the next section, but you may wish to work with your peers and instructor on developing your own focusing questions. These will guide your observations and interviews and help you organize the field notes you record.

It is wise to keep your notes on your laptop or in a looseleaf notebook (such as the one you may have already begun using to record your observation goals and priorities). This gives you the advantage of being able to move and shift your notes around into different organizational formats. As you spend more time in field observation and collect increasing amounts of data, this ability to reorganize notes without losing them will be extremely helpful.

Sometimes it is impossible to take notes during observations and interviews. There may not be time, or you may sense that the interviewee will "clam up" if you whip out your notepad and pencil or laptop. In cases such as these, you will need to summarize your notes later. Whether you take notes during observations and interviews or make summary observations, you should record when and where each data collection activity took place. The more detailed dialogue and clearly defined images you include in your notes, the more useful they will be. Thorough and complete notes, filled with anecdotes and details, are called "rich data" and will help you reach the most insightful interpretations of events and behavior.

Logs and Journals Many teacher education programs require or recommend that you maintain a log or journal during your field experiences. Some programs specify a particular format, while others allow a more open-ended approach. In either case, the log or journal is intended to help you document and reflect on your observations. As you write your account, you will be giving thought both to the field experience and to its impact on you. Over time, you will detect growth and possibly significant change in what you believe about teaching and schools. When your field experiences are completed, you will have a written account of your activities and changing views during this formative period of your professional preparation.

In your log, you should also describe incidents observed or activities participated in as objectively as possible. This log should be kept on a daily basis, because time erases memories and feelings. Each day, your log should include one or two events that are particularly meaningful to you. An event may be significant because it impresses you (for example, a terrific teaching technique), because it is educationally important (such as a successful strategy for classroom management), because it disturbs you (for example, a poorly executed activity or a negative interaction you have), or because it challenges or confirms your beliefs and ideas. These events, whether positive or negative, should be selected and described because they are critical incidents for learning. The descriptions should be objective and detailed. Later you should set time aside, mull them over, and interpret what you learned. This part of the log is akin to a professional diary. If you have trouble analyzing any of these significant events, your instructor or other students may be able to assist. Identifying what events are most significant to you is a key step both in keeping a journal and in developing a reflective and professional approach to teaching. If your field experience does not have a specific log or journal format, here is one you may find useful:

Sample Log Format

Location: _____   Name: _____

Date: _____

Time: Activities:

_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____

Significant event: _____

Description:

Analysis:

Other significant events, if appropriate:

In the log, as well as in your observation activities, it is useful to distinguish between description and judgment. It is also helpful to recognize some basic rules for observing. The next sections focus on these issues.

BECOMING ACCEPTED AS AN OBSERVER

A principal once told a story of an observer who became so involved in a teacher's lesson that he was soon raising his hand, responding to the teacher's questions, inserting personal anecdotes, and monopolizing classroom interaction. By the end of the class, the observer and the teacher were engaged in an animated dialogue, and the students had become passive onlookers. The observer had completely disrupted the classroom activities he was there to study. Such a complete role reversal is uncommon, but the following guidelines are offered as an antidote to the potentially disruptive effect posed by any classroom observer.

As an observer, you can generally avoid such direct verbal involvement as was described, but the more subtle challenge is to avoid nonverbal intrusion. What do you do when children engage you in nonverbal conversation consisting only of eye contact and facial expressions? Do you smile back, wink, and establish an unspoken kinship? Or, for fear of disturbing the class routine, do you ignore the students and possibly alienate them?

Although hard-and-fast rules are difficult to come by, it is clear that your presence in the classroom is not intended either to win friends and influence people or to alienate others. You must learn to accept students' nonverbal messages yet avoid prolonging these interactions. Ignoring all eye contact can be just as disruptive as encouraging such contact can be. With experience, you will be able to accept these subtle forms of communication without amplifying them. In this way, you can demonstrate that, although you are not insensitive to the interest and curiosity of students, your purpose in the classroom is to observe, not to alter, classroom life.

A primary goal is to observe the most and intrude the least. For most observations, this means positioning yourself as inconspicuously as possible, where you are behind the students but have a clear view of the teacher. It is also useful to conduct some observations from the side of the room, so that you can see the children's faces and nonverbal cues. The expressions, comments, and activities of the students will give valuable insights into student-teacher relationships and the nature of classroom life. In some cases, you may have to change your location while a lesson is in progress (for example, moving among various groups of students to observe their activities). Whatever your location, it is important to avoid coming between people who wish to communicate.

To some extent, our society consists of a series of minisocieties, each with its values and rules of order. Schools are examples of such minisocieties, with each level (elementary, secondary, college) having its own unique set of norms. As an observer in schools, you will be judged by students and staff alike on the basis of their norms, not on the basis of those you have become accustomed to in college or graduate school. You will probably be expected to dress rather formally, to arrive early or notify the school if you will be late, and to conform to the school's rules and regulations. Your instructor will probably inform you of the prevailing norms.

CONFIDENTIALITY OF RECORDS

As you observe and collect data, you must make certain that your actions do not invade the privacy of or in any other way harm those you are observing. Most schools require anonymity in your observations and

confidentiality in the data you collect. Individual teachers, students, and others should not risk inconvenience, embarrassment, or harm as a result of your field experience.

Each school has its own norms and rules regarding what observers can and cannot do. Some require a signed release from school officials and/or from students (informed consent), while others are less formal. You should share your observation plan and data-gathering activities with your instructor to make certain that you are following the appropriate procedures. Your cooperating teacher and/or the principal in the school where you will be observing may also need to be informed. In cases where permission is not granted, you will need to find another setting.

All data that you collect should remain absolutely confidential. The importance of this point cannot be stressed too much. You may wish to use code names or numbers for people you describe, and you should never discuss observations with any members of the school community. For example, if you tell teachers some information you have learned about students, you run the risk of losing trust and credibility and possibly harming a member of the school community. Your records should be stored away from the field school, in a location that is both safe and private. In this way you can ensure that the confidentiality of your subjects will be protected.

DISTINGUISHING BETWEEN DESCRIPTION AND INTERPRETATION

As you collect data, your information should be recorded—at least initially—in a descriptive rather than a judgmental manner. As a student, your observations about school were probably casual, resulting in the formation of opinions, such as Teacher A is "interesting," School B is "the pits," or geometry is "hard." These interpretations, although colorful and useful, are personal and would have been likely to evoke disagreement from some of your fellow students.

A better approach for an observer is to gather descriptive data regarding an aspect of school or classroom life, interpret the data, and, when appropriate, form conclusions and judgments. Rather than saying that Teacher A is "good" (an interpretation), you might count the number of questions Teacher A asks, the amount of time Teacher A spends helping students, or even the number of advanced degrees Teacher A holds. All these findings provide objective,

descriptive data. Although some of your descriptive data may not be useful, other notes may be crucial to your final interpretations and insights.

Data collection activities presented in this manual frequently ask you to record descriptive details and, after reflection, to interpret the information. The following examples will help you distinguish between description and interpretation:

Description: The teacher asked twenty-three questions in seven minutes.

Interpretation: The teacher asked too many questions.

Description: The teacher scolded Henry ten times during the morning.

Interpretation: The teacher picked on Henry.

Description: The student yawned twice and spent eight minutes looking out the window.

Interpretation: The student was bored.

Description: The building was constructed in 1940.

Interpretation: The building is old.

Description: This school consists of 121 elementary school classrooms.

Interpretation: The school is too big.

Description: Twenty-five out of twenty-seven students volunteered answers during math class.

Interpretation: The students are interested in math.

This ability to separate fact from opinion is a crucial skill that can prevent you from jumping to erroneous conclusions. Most of us like to think that "seeing is believing," but sometimes "believing may be seeing." In other words, each of us brings to any observation a set of biases and perspectives through which events may be distorted. To guard against reaching inaccurate interpretations, make a careful record of what you see. Judgmental comments can also be made, but they should be kept separate from your descriptive observations. Some observers insert interpretations and questions into their records, but they separate them from their descriptive notes with parentheses.

INTERPRETING THE DATA

After you have collected your data, you will need to interpret and make sense of a vast amount of information. To do this, it will be helpful to look for words,

patterns, phrases, and topics that keep recurring in your records. If competency testing is being used in your school, for example, you may find that the teachers talk about these exit exams in many classes and spend a great deal of time preparing students for them. After analyzing your notes from patterns, you may reach the conclusion that competency testing is exerting too great an influence on what is taught. As you form impressions and interpretations, it is a good idea to check these with participants in the environment. For example, you might ask the teachers, "I have noticed that your students will take competency exams this year. What influence do you think these exams have in the school?" You can also check your interpretations by searching for instances of contrary behavior. In this hypothetical situation, you have found that many teachers spend a great deal of time teaching for the competency tests. However, it is also important to look for counter instances, teachers who devote little time or attention to the competency tests. If you find several teachers in this category, your initial impressions may not be accurate. After all your notes have been recorded and analyzed, the final product is often an ethnographic report or case study. How insightful your report is will depend on the richness of detail in your notes and how thoughtfully you have interpreted the data. Typically, an ethnographic report comprises two sections: (1) a descriptive summary of the data you observed and (2) an interpretation or evaluation section that sets forth your conclusions. Your instructor can help you determine the particular form your final report should take.

DATA COLLECTION ACTIVITIES: THE SETTING

No student or teacher functions in isolation. As you think about your future life in the classroom, you must also consider the general community, the school building, and even the physical environment of the classroom. Students arrive at school after years of being taught the unofficial curriculum of parents, friends, and neighbors; their previously learned values and skills can help or hinder their efforts in the classroom. Understanding community attitudes and actions can be pivotal to enhancing your teaching effectiveness, as well as the classroom performance of your students. The physical qualities of the school building and the quantity and quality of classroom resources also will shape your life in the classroom.

Sample Activity 1: Local Newspaper Most communities have a local newspaper or are covered in a section of a large-circulation newspaper that focuses on community affairs. If your school library or the public library carries back issues of these publications, read those for the past several months. In addition, keep up with local news coverage for that community. From your analysis of the news stories, editorials, advertisements, and letters to the editor, how would you answer the following?

Guidelines: Local Newspaper

What are the major community concerns?

What are the school's major projects? Are there any school-community partnerships to accomplish education-related goals?

Which aspect of school life receives the most coverage (athletics, academics, cultural activities, and so on)?

How does the community react to standardized test scores, financial needs, new facilities, and other educational concerns?

Sample Activity 2: Unobtrusive Measures *Unobtrusive measurement* is a way of assessing a situation without altering it.[4] Obtrusive methods, such as asking questions directly, frequently contaminate the findings. For example, if you ask students what they think of a school, they may guard their comments and share only part of their real feelings. They do not know you or what you might do with the information.

As a student, you probably experience a similar phenomenon when you take exams. Before answering the questions, you may consider the attitudes and values of the teacher and tailor your responses accordingly. You may try to answer the questions not only correctly but also in a way that pleases the teacher. Have you ever changed the response you gave in order to fit your teacher's expectations? This strategy may improve your grade, but it denies the teacher an accurate insight into your attitudes and perspective.

One famous experiment in unobtrusive measures attempted to determine which exhibit in a museum was attracting the most visitors. An obtrusive measure (direct questioning) had previously indicated that a prestigious work of art was the most popular. However, an examination of the wear and tear on the floors, of the number of fingerprints on the protective glass, and of other unobtrusive data indicated that an incubator with hatching chickens was the most

frequently visited exhibit. This contradiction between verbal and nonverbal responses was probably the result of the patrons' belief that visiting a work of art was more intellectually appropriate than watching chickens hatch. In short, the obtrusive interview technique distorted the responses and was, therefore, less effective than was the unobtrusive measure (that is, assessing the amount of dirt and the wear and tear on carpets and windows).

As these examples illustrate, unobtrusive measures are intentionally indirect in order to avoid contaminating the evidence. In the data collection activity that follows, you will be using unobtrusive procedures. Answer each question with descriptive data. Then think about the information you have gathered and consider what interpretations or judgments to make.

Guidelines: Unobtrusive Measures

Record the graffiti written on walls, desks, and, especially, in bathrooms.

Examine the exhibits and bulletin boards to determine if they are student-made, teacher-made, or commercially produced. Do they appear to have been there a long time, or do they seem to be changed regularly? As the students pass by, do they stop and look at them?

Ask the librarian if you may look at information about books that were checked out during the past two weeks. How many were checked out, and what were they about? Examine some books. Are they in good condition? Are they badly worn? defaced?

Check the lunchroom after lunch has been served. Are the trash cans filled with normal debris—or uneaten lunches?

Examine the floors for wear and tear. What floor spaces in the school and in the classrooms seem to be most worn? What is located in these areas? What areas of the school seem to be getting the least traffic? What is located in these areas?

Visit the main office and keep a tally of the conversations held by the school secretary. Who is scheduled to meet with the principal? How many of these visitors are students? faculty? parents? others?

Whom does the principal visit? How often does he or she leave the office to interact with teachers and students?

Data Collection Activities: The Teacher

As you approach your field experience, your primary concerns may be focused on teaching. Will you like it? Will you be good at it? Will the teacher you work with be helpful? What, precisely, is "good teaching"? During your teacher education program, and even during your initial years as a teacher, you will, in all likelihood, continue to focus on questions relating to teachers and teaching.

Many of these activities rely on a similar data collection approach and the use of a class seating chart. The research on teacher effectiveness discusses the importance of active student interaction in promoting learning and positive attitudes toward school. Unfortunately, teachers do not distribute their attention evenly; rather, they ask many questions of some students and none of others. Teachers may direct questions more to children of one gender or race than to those of another. Attention, questions, and praise may be distributed on the basis of which students the teacher likes, or even on the basis of where the students happen to be seated in the classroom. One very common form of bias is for teachers to direct most of their questions to the better students, because their replies are more likely to be on target and, therefore, satisfying. Both the quantity and quality of teacher attention have an impact on student achievement.

In the following activity, you will need to construct a seating chart. (Perhaps the teacher has one that you can use.) But, unlike the teacher's, your chart should include the name, gender, and, when possible, race or ethnicity of each student. (A sample seating chart is provided in Figure 2.)

To begin, on your seating chart you will record with whom the teacher interacts in the classroom. There are two types of teacher-student interactions to be recorded: (1) those that depend on voluntary responses offered by the students and (2) those that are involuntary. Voluntary student responses occur when students
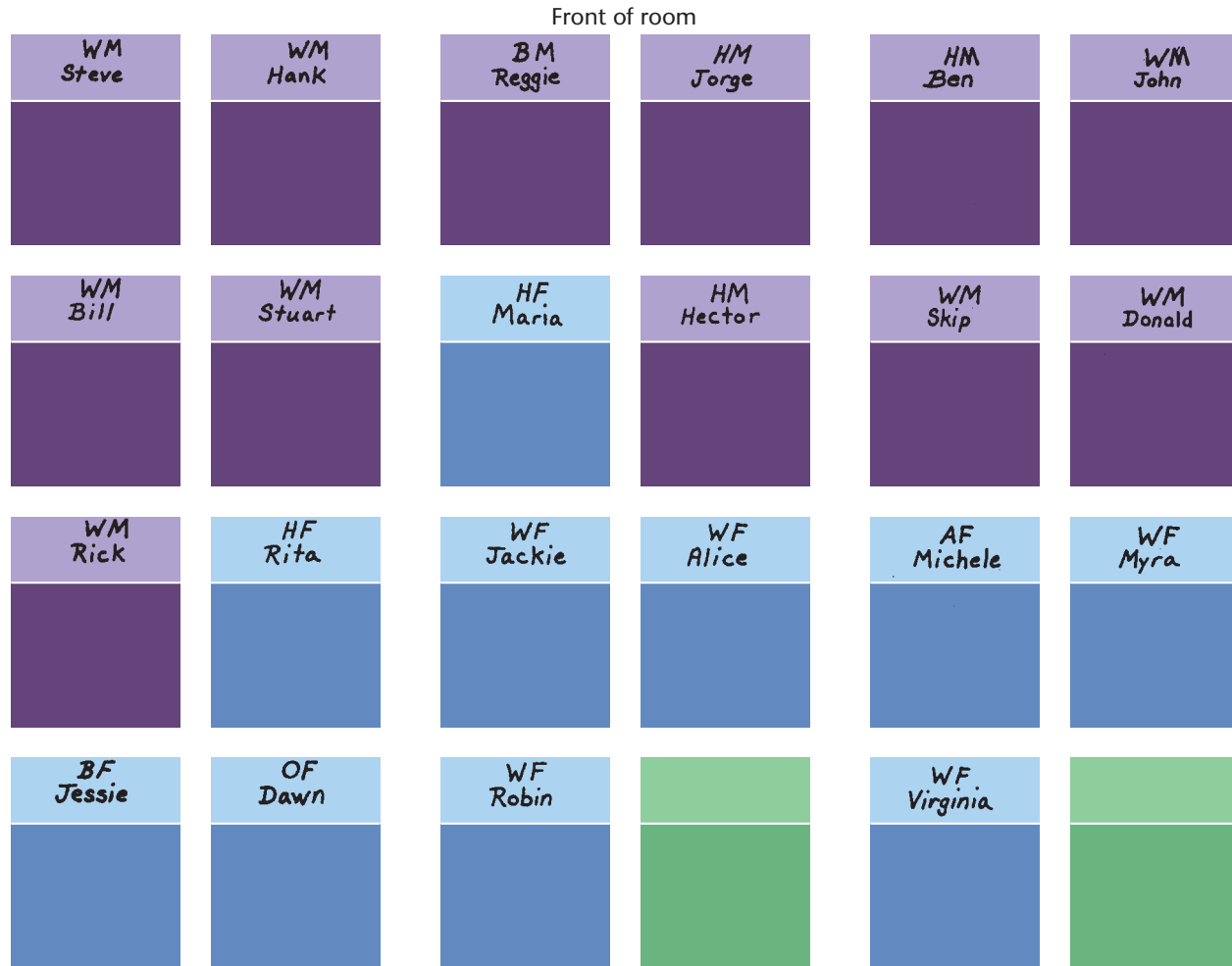
- Raise their hands to respond
- Call out an answer
- Voluntarily respond to the teacher through any established classroom procedure

Involuntary student responses occur when the teacher requests a response from a student who has

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FIGURE 2   **Sample seating chart 1.**

Teacher's name _____   Date _____
Observer's name _____   Time begin _____
                                                            Time end _____

Front of room

WM Steve	WM Hank	BM Reggie	HM Jorge	HM Ben	WM John
WM Bill	WM Stuart	HF Maria	HM Hector	WM Skip	WM Donald
WM Rick	HF Rita	WF Jackie	WF Alice	AF Michele	WF Myra
BF Jessie	OF Dawn	WF Robin		WF Virginia	

BF Sandy

Generic symbols:

M = Male   A = Asian
F = Female H = Hispanic
W = White   O = Other
B = Black

not raised a hand, called out an answer, or in any other way indicated an interest in answering.

Each time a teacher elicits a response, the observer records a *V* or an *N* for that student directly on the classroom seating chart. *V,* representing a volunteer, indicates that the teacher is investing time in a student who is volunteering to respond. *N,* representing a nonvolunteer, indicates that the teacher is intentionally soliciting a response from a nonvolunteering student. (Note: a student calling out or in any other

FIGURE 3
Sample classroom dialogue.

	Dialogue	Action	Code
Teacher:	"Who can answer question number three?"	Hank raises a hand.	
Teacher:	"Hank."		Mark *V* for Hank.
Hank:	"Twenty-two."		
Teacher:	"No. That's not correct. Maria?"	Maria not volunteering.	Mark *N* for Maria.
Maria:	"Twenty."		
Teacher:	"Correct."		
Steve:	"I thought the answer was 18."	Steve calling out.	
Teacher:	"Let's look at the next question."		No mark. Steve was not recognized.
Teacher:	"Rita?"	Rita not volunteering.	Mark *N* for Rita.
Rita:	(*no response*)		
Teacher:	"Apply the formula, Rita."	Rita still not volunteering.	Mark *N* for Rita.
Rita:	"Oh, I see. Is it seven?"		
Teacher:	"Good. That's it. Why is it seven, Rita?"	Rita not volunteering.	Mark *N* for Rita.
Rita:	"You add the two sides."		
Teacher:	"Terrific."		

way responding who is not recognized by the teacher does not receive a code. The teacher has ignored this volunteer and not invested any time in this student.)

Figure 3 is a sample classroom dialogue, demonstrating how this coding system works. This description of classroom interaction is coded on the sample seating chart 2 in Figure 4.

Once you collect your observation data, several activities and levels of analysis are possible. Analyses such as those that follow provide important insights into the distribution of teacher attention.

Sample Activity 1: Classroom Geography Simply examining the pattern of teacher questions directly from the seating chart provides you with an immediate, visual impression of the areas in the classroom that receive a great deal of interaction, as well as the areas that are interaction-poor. Some students may be in-

volved in no interaction at all; others may take part in a number of interactions. Some students may only have one or two Ns, while others may have a great number of Vs. You may want to circle the areas of the classroom that are rich with teacher attention, as well as those areas that are interaction-poor.

Sample Activity 2: Detecting Racial Bias Although educators as a group are firmly committed to educational equity, subtle and often unintentional biases can emerge.[5] Teachers often unknowingly give more attention to students of one race than to those of another, or give different kinds of attention to one group than they give to another. You may be able to detect these subtle biases from data recorded on your seating chart. It is best to record several sessions of classroom interaction in order to obtain an accurate measure of potential racial or ethnic bias. The procedure then becomes one of simple mathematics. First, identify the

FIGURE 4   **Sample seating chart 2.**

Teacher's name _____   Date _____
Observer's name _____   Time begin _____
                                                            Time end _____

Front of room

| WM Steve | WM Hank | | BM Reggie | HM Jorge | | HM Ben | WM John |
| V | | | | | | |

| WM Bill | WM Stuart | | HF Maria | HM Hector | | WM Skip | WM Donald |
| | | N | | | | |

| WM Rick | HF Rita | | WF Jackie | WF Alice | | AF Michele | WF Myra |
| N,N,N | | | | | | |

| BF Jessie | OF Dawn | | WF Robin | | | WF Virginia | |

BF Sandy

Symbols for this observation: Generic symbols:

N = Nonvolunteering student   M = Male   A = Asian
V = Volunteering student   F = Female   H = Hispanic
                                  W = White   O = Other
                                  B = Black

expected number of interactions or questions (that is, a fair share) for each group. If, for instance, a class consists of 40 percent students of color, then a fair share would mean that students of color receive 40 percent of the teacher's questions. If the students of color receive fewer than 40 percent, they are not getting their fair share. For the second step, determine the actual number of interactions that each group receives. Finally, compare the figures. Here is how you would do the computations:

Sample Classroom Data

Class attendance   5 students of color
                       10 white students
                       _____
                       15 total students in the class

Teacher questions   15 to students of color
                       45 to white students
                       _____
                       60 total interactions

Step 1

Determine expected or fair share of questions, by race/ethnicity:

$$\text{Students of color fair share} = \frac{\text{Students of color attendance}}{\text{Total attendance}} = \frac{5}{15} = 33\%$$

$$\text{White fair share} = \frac{\text{White attendance}}{\text{Total attendance}} = \frac{10}{15} = 67\%$$

Step 2

Determine actual share of interactions, by race/ethnicity:

Percentage students of color interactions = Number of interactions with students of color ÷ Total interactions

$$= \frac{\text{Students of color interactions}}{\text{Total interactions}} = \frac{15}{60} = 25\%$$

Percentage white interactions = Number of interactions with white ÷ Total interactions

$$= \frac{\text{White interactions}}{\text{Total interactions}} = \frac{45}{60} = 75\%$$

Step 3

Determine the difference between expected (or fair share) and actual distribution of interactions:

Students of color actual share	=	25%
Students of color fair share	=	33%
Difference	=	−8% (8% fewer interactions than a fair share)

White actual share	=	75%
White fair share	=	67%
Difference	=	+8% (8% more interactions than a fair share)

Students of color received approximately 8 percent fewer questions than would be their fair share, or the amount that would be expected based on their representation in the class. White students received approximately 8 percent more than their fair share. Subtle bias exists in this sample classroom interaction.

Sample Activity 3: Questioning Level John Dewey was one of many noted educators who believed that questioning is central not only to education but to the process of thinking itself. Unfortunately, research indicates that most teachers do not use effective questioning techniques. Not only is the distribution of questions often inequitable, but teachers rarely use challenging classroom questions. Instead, they tend to rely on lower-order, or memory, questions.

Lower-order questions are those that deal with the memorization and recall of factual information. The student is not required to manipulate (that is, apply, analyze, synthesize, or evaluate) information. There is nothing inherently wrong with asking memory questions, such as "When did the American Revolution begin?" or "Identify one poem written by Robert Frost." However, a heavy reliance on such questions reduces the opportunity for students to develop higher-order thinking.

Conversely, higher-order questions are those that require students to apply, analyze, synthesize, or evaluate information. They encourage students to think creatively. When a teacher asks, "What is your opinion of this poem by Robert Frost, and what evidence can you cite to support your opinion?" that teacher is asking a higher-order question. Only 10 percent of most teachers' questions fall into this higher-order category.

To help you distinguish between lower-order (memory) questions and higher-order (thought) questions, here are some examples of each:

Lower-Order Questions

- Who founded abstract art?
- Name three Romantic authors.
- Whose signatures appear on the Declaration of Independence?
- In what year did the war begin?
- Who wrote your text?

Higher-Order Questions

- What conclusions can you reach concerning the images Shakespeare uses to portray death?

• What forces motivated Romantic authors?

• Why did no females or African Americans sign the Declaration of Independence?

• What does this poem mean to you?

• What would you say in a letter to the president of the United States?

Now, try coding the kinds of questions asked in a classroom. When a lower-order question is asked, record an *L* on your seating chart. When a higher-order question is asked, record an *H* on the seating chart. The sample coding form in Figure 5 illustrates the use of this approach. On Sample Seating Chart 3 in Figure 5, recording a hypothetical classroom discussion, the preponderance of lower-order questions is evident, as well as several patterns of bias. Can you detect some of these patterns? Take a minute to analyze the teacher's level and distribution of questions and jot down any problems you detect. Then compare your analysis to the one that follows.

Problems Reflected on Sample Seating Chart 3, Figure 5:

• Preponderance of lower-order questions

• Proportionately more questions asked to males

• Proportionately more questions asked to white students than students of color

• One side and back of the room ignored

Try this in a classroom that you are observing. After constructing a seating chart, choose a 20- or 30-minute segment of teacher-student interaction. Record the number of higher-order and lower-order questions asked of each student in the class by noting *H*s and *L*s, as called for, on your seating chart. Then analyze the questioning pattern, using the following questions as a guide.

Guidelines: Questioning Level and Race/Ethnicity and Gender Bias

How many questions were asked? What was the average number of questions per minute (total questions divided by minutes observed)?

What was the ratio of lower- to higher-order questions?

What were the areas of the class that received a greater number of higher-order questions?

Do you detect any patterns of racial, ethnic, or gender bias in the distribution of questions in general and of higher-order questions in particular?

Data Collection Activities: The Students

Although the students in any school constitute the reason for everything else—the building, the curriculum, the teachers—their interests are sometimes overlooked. You can learn a great deal about the school milieu, the community, and the kind of teaching students prefer by including an analysis of learners in your field experience. This section focuses on students and the social system in which they live and learn.

Many believe that schools are created and maintained by the larger society for the express purpose of socializing its young into the roles of the prevailing culture.[6] To the casual observer, this socializing function is not apparent. The school seems to be an isolated and self-contained subculture accountable to no one. Data on the school and classroom social system will show the links between school and society with great clarity, and you will be able to interpret their significance.

Most of us are so accustomed to the norms, values, and beliefs that constitute our culture, that we have difficulty detecting their influence all about us. We are much more alert to things that are new and different.
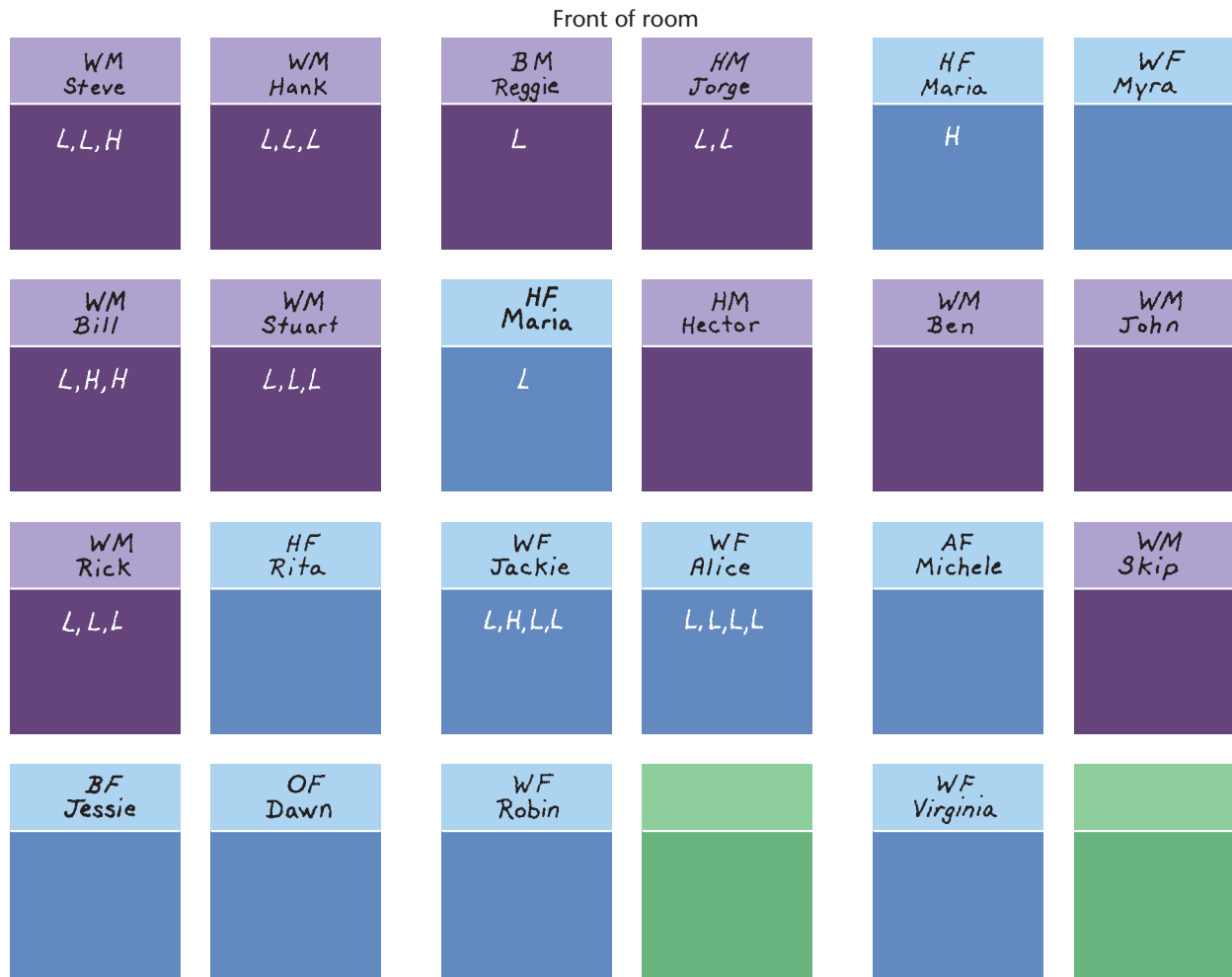
To gain new insights from the commonplace, researcher Seymour Saranson recommends that you take the perspective of a visitor from outer space, who will be more alert to both blatant and subtle patterns of the school as a social system.[7] For example, an important aspect of our schools, but one not usually thought about, is that they must provide custody and control of youngsters for a major part of the work week. Housing a large group of children and adolescents in a small space for many hours a day has a major impact on the classroom social system. "Only in school do thirty or more people spend several hours a day literally side by side. Once we leave the classroom, we seldom again are required to have contact with so many people for so long a time."[8] In these crowded conditions, students and teachers often clash, because their purposes may be vastly different. The teacher is there to socialize the young and to help them learn. Grade school students are often in class to play and have fun, whereas adolescents' goals may involve developing social and even intimate relationships.

In the densely populated classroom, the teacher functions as a supply sergeant (giving out paper, books, and so on), as a timekeeper (determining how long the class will spend on given activities), and as a

FIGURE 5   Sample seating chart 3.

Teacher's name _____   Date _____
Observer's name _____   Time begin _____
                                                        Time end _____

Front of room

WM Steve	WM Hank	BM Reggie	HM Jorge	HF Maria	WF Myra
L,L,H	L,L,L	L	L,L	H	

WM Bill	WM Stuart	HF Maria	HM Hector	WM Ben	WM John
L,H,H	L,L,L	L			

WM Rick	HF Rita	WF Jackie	WF Alice	AF Michele	WM Skip
L,L,L		L,H,L,L	L,L,L,L		

BF Jessie	OF Dawn	WF Robin		WF Virginia	

				BF Sandy

Symbols for this observation: Generic symbols:

L = Lower-order question   M= Male   A = Asian
H = Higher-order question   F = Female   H = Hispanic
                                       W= White   O = Other
                                       B = Black

gatekeeper to class discussion (deciding who will talk and for how long).[9] While the teacher is busy filling all these roles, students are left to wait and do nothing. They stand in lines, they sit with their hands raised, and they wait for other students to finish so that they can go on to other activities. Sitting still and remaining silent are denials of their natural instincts.

Frustrated by this densely populated and artificial situation, students often rebel, pitting their own group power against the authority of the teacher. Sometimes this power struggle is subtle, with the sizing up and testing of the teacher its only visible signs (for example, by not handing in homework on time or cajoling to get an assignment lessened or postponed). At other times, the power struggle erupts to the surface of the social system as students openly flout or disregard adult authority. Observing these overt signs of the power struggle is easy. Picking up the subtle rituals and patterns of the social system that underlie these disruptions is a more challenging task.

Sample Activity 1: Student Groups Social status is a powerful force in school, and groups and cliques are often officially or unofficially labeled. The race/ethnicity, gender, national origin, social class, or ability level of a group's members may affect how it is labeled. The following activity focuses on the treatment of these special groups. Some of these data can be collected through observation; in other cases, information can best be gathered through interviews. Answer as many of the following as you can to glean insight into the special world of students.

Guidelines: Student Groups

Do students form groups, or cliques, based on such characteristics as race/ethnicity, gender, religion, national origin, achievement level, or social class?

Do these groups occupy ("hang out" around) certain school areas? Do they sit together in class?

What are the values and priorities of such groups? How do they differ from other social groups?

Do school displays and classroom bulletin boards reflect all groups (females, students of color or with disabilities, and so on) or mainly white males? Do these displays promote stereotypic or nonstereotypic perceptions?

Do students from these different groups actively and equitably participate in classroom interaction? in extracurricular activities?

How does the school reflect community values in its treatment of females, students of color or with disabilities, and so on? How does the school environment differ from that of the community?

What special education needs are represented by exceptional children in the school? If physically disabled children are present, are there physical barriers within the school that restrict their access to facilities?

To what degree are students with special needs mainstreamed? To what degree are they provided with segregated special education?

Are students in the school "tracked"? If so, what generalizations can you make about the students in each track?

What provisions are made for students whose native language is not English? How does this affect their adjustment to the school?

Sample Activity 2: Teachers' Views of Students Try to talk to three or four teachers to assess their perceptions of the students who attend the school. The following teacher interview questions will enable you to learn about each teacher's perception of the students' social system, as well as the norms and rules they establish for classroom management.

Guidelines: Teachers' Views of Students

What are your classroom norms and rules for appropriate behavior?

What are the penalties for students who violate the rules?

What was the worst discipline problem you have ever had to handle?

What advice would you give a new teacher about classroom management?

How many cliques are there in your classroom? Are there isolates, students who do not seem to belong to any social group?

Is there race/ethnic or class segregation in work or play groups? Who does the segregating? Are there any penalties for students who try to integrate these groups?

How are the needs of special education students met? What is done to meet the needs of the gifted?

What social or interpersonal aspects of the class have given you the greatest pleasure during the past year? the greatest problem?

Data Collection Activities: The Curriculum

In the midst of a worldwide knowledge explosion, it has become impossible to teach or learn all the information and skills now known. Moreover, every year more and more knowledge becomes available. Clearly, decisions need to be made about what to teach and what to learn. Although states and local school districts are pivotal in shaping the curriculum you will be teaching, you have some decisions to make as well. You need to consider your own ability in the subject or subjects you are to teach. Do you need to take additional academic courses to improve your own preparation? Once assigned a curriculum, how do you decide what to emphasize? What are the most important things for your students to learn?

The nature and direction of the school curriculum are explored in several chapters in this text, but it is useful for you to consider these and other curricular issues during your field experience. The activities in this section will start you on a career-long investigation of what you should teach and what is worth knowing.

Sample Activity 1: People and Experiences Take a moment to think about how your individual experiences have led to your unique outlook on the curriculum. Next to the people and experiences listed below, indicate which have influenced your view of subject matter and the curriculum. (Note at least three people and three experiences and indicate how each has influenced your view.)

People
Family: _____

Relatives: _____

Teachers: _____

Friends: _____

Others: _____

Events
Trips: _____

Volunteer work: _____

Salaried employment: _____

Personal successes: _____

Personal failures: _____

Other: _____

Your personal life experiences, in conjunction with your school classes, have shaped and directed your view of subject matter and the curriculum. Your back-ground also contributes to your philosophy of teaching and learning. Examine your answers to Sample Activity 1 and complete the following statement:

I believe that some of the most important reasons to study my subject (or, if in elementary school, the subjects at my grade level) include

_____

_____ .

Sample Activity 2: Textbook Analysis Review a textbook used in your school. In your analysis, look carefully at narrative and pictures. The following questions should guide your textbook review.

Guidelines: Textbook Analysis

How recent is the textbook edition? What is the copyright date?

How would you characterize the quality of the writing? Is it stilted and dull or rich and interesting? Give examples to support your point of view.

Is the textbook guilty of "mentioning"—providing facts and figures without adequate context and explanation? Give examples to support your point of view.

Does the text include an adequate representation of males and females from many diverse groups? Count the number of males, females, and their group membership in order to reach your conclusions.

What kind of supplementary materials accompany the textbook? Is there a workbook, a teacher's manual, a CD-ROM, a website, or other supplementary materials? Do these supplementary materials treat the teacher as a professional—or are the directions so specific that the teacher becomes little more than a technician?

Reflection: Looking Back on Your Field Observations

Your field experience is an exciting part of your professional preparation, bridging all your past experiences as a student with your future career as a teacher. The activities in this manual provide you with opportunities for experience and reflection. These forge a critical link between your current role as a student and your future role as a professional in the field of education. The more expert you become in observing and reflecting on school life, the more insight and understanding you will gain about the nature and challenges of teaching.