Table 12.1 summarizes this insider-outsider discussion, how it relates to different types of environments, and how much control evaluators take over the evaluation process.

12.2.2 Approaches to observation

Observers can be outsiders in the field and in the controlled environments, but they can't be insiders in a controlled environment. In the field it is possible to have varying degrees of "insider-outsiderness." In practice these distinctions are more difficult to describe than to experience!

"Quick and dirty" observation

"Quick and dirty" observations can occur anywhere, anytime. For example, evaluators often go into a school, home, or office to watch and talk to users in a casual way to get immediate feedback about a prototype or product. Evaluators can also join a group for a short time, which gives them a slightly more insider role. Quick and dirty observations are just that, ways of finding out what is happening quickly and with little formality.

Observation in usability testing

Video and interaction logs capture everything that the user does during a usability test including keystrokes, mouse clicks, and their conversations. In addition, observers can watch through a one-way mirror or via a remote TV screen. The observational data is used to see and analyze what users do and how long they spend on different aspects of the task. It also provides insights into users' affective reactions. For example, sighs, tense shoulders, frowns, and scowls speak of users' dissatisfaction and frustrations. The environment is controlled but users often forget that they are being observed. In addition, many evaluators also supplement findings from the laboratory with observations in the field.

Observation in field studies

In field studies, as we have said, observers may be anywhere along the outsider-insider spectrum. Looking on as an outsider, being a participant observer, or being an ethnographer brings a philosophy and practices that influence what data is collected, how data collection is done, and how the data is analyzed and reported. Colin Robson (1993) summarizes the possible levels of participation as: complete participants, more marginal participants, observers who also participate, and people who observe from the outside and do not participate.

Whether and in what ways observers influence those being observed depends on the type of observation and the observer's skills. The goal is to cause as little disruption as possible. An example of outsider observation is when an observer is interested only in the presence of certain types of behavior. For instance, in a study
of the time spent by boys and girls using technology in the classroom, an
observer may go into the classroom to note when technology is used by boys and
girls. She could do this by standing at the back of the room with a data
sheet on which she notes the gender of the children who use the computer and how
long they spend using it. In contrast, if the goal is to understand how the compu-
ter integrates with other artifacts and social interactions in the classroom, a more
long-term approach would be better. In this situation the evaluator might take more
consideration of the observer’s perspective in which she talks to participants as well as observes.
server mixes and integrates with participants more, but there is no illusion that
is anything other than an observer.

Inside observers may be participant observers or ethnographers. In participat-
on observation evaluators participate with users in order to learn what they
see, how and why they do it. A fully participant observer observes from the insid-
ner point of view. Some see participant observation as virtually synonymous with ethnography (Atkinson
and Heritage, 1994). Others view participant observation as a technique that involves
ethnography along with informants from the community, interviews with community
members, and the study of community artifacts (Fetterman, 1998). Ethnographic evaluation is derived from ethno-
graphic studies that can take weeks, months, or even longer to gain an “inside” understanding of
what is going on in a community. Much shorter studies are usual in interaction de-
cause of the time constraints imposed by development schedules.

As in any evaluation study, goals and questions determine whether the obser-
vation will be “quick and dirty,” in a controlled environment or in the field, and
extent to which the observers are outsiders or insiders. Determining goals, formu-
ating questions, and choosing techniques are necessary steps in the DECIDE
work. Practical and ethical issues also have to be identified and decisions made
about how to handle them.

12.3 How to observe

The same basic data-collection tools are used for laboratory and field studies.
In direct observation, taking notes, collecting video, etc.) but the way in which
tools are used is different. In the laboratory the emphasis is on the details of what
individuals do, while in the field the context is important and the focus is on how
people interact with each other, the technology, and their environment. Further,
the equipment in the laboratory is usually set up in advance and is relatively
stationary, whereas in the field it usually must be moved around. In this section we discuss
the methods of observation, and then examine the practicalities and compare data-collection