Requirements validation

The purpose of the validation stage of requirements engineering is to make sure that the developer has understood and recorded correctly the wishes and needs of the clients and users of the new system. Some validation can be carried out in parallel with elicitation, for example by summarizing during an interview what has been said, but there are also a number of more formal validation techniques that are used to ensure the accuracy of the requirements specification.

A written summary of each interview should be prepared by the developer and given to the interviewee shortly after the interview. This gives the interviewee an opportunity to check for any gaps or errors in the information that the developer has recorded from the interview. The summary should cover the main points raised during the discussion and any future action to be taken. A summary of the interview with Annie Price, the Wheels' shop manager, can be seen in Figure 2.8.

One of the most effective methods of validation is to cross-reference information obtained from different elicitation approaches. For example, scenarios produced in conversations with users may be compared with notes from observations of the same users carrying out day-to-day tasks. In the interview with Annie, she says that she gives the customers a receipt when they hire a bike, but observation may show that she often forgets to do this. Comparing information from different elicitation activities allows the developer to pick up any disparity between what people say they do when they carry out a task, and what they actually do. Comparisons can also be made between information obtained from questionnaires and information from interviews, observation or a study of documents.

Once requirements have been documented more formally, they may be subject to a Fagan inspection. This is a systematic and structured method of checking the documented output from any stage of the system development process in order to identify omissions and errors. A Fagan inspection is carried out by a small team of people, including the developer who produced the documentation that is being inspected and one or more people whose job it is to look through it in detail and identify any defects. Any omissions, inconsistencies or mistakes in the documentation are pointed out to the developer, so that these can be remedied if necessary through further consultation with clients and users of the system. In the development of the Wheels system, the problems and requirements list (see extract in Figure 2.7) would be the subject of a Fagan inspection to ensure that all requirements have been fully documented.