

OBSERVATION UNIT
Institute for Social & Behavioral Research
Iowa State University
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The Observation Unit plays an important role in the Institute for Social and Behavioral Research's (ISBR's) over-all effort to understand and improve the lives of individuals and families. By providing reliable and valid ratings of video-recorded behavioral interactions, trained observers supply an additional and somewhat more objective view of relationships between project participants than provided by the participants themselves. This complements the important information provided by participants and is especially valuable for longitudinal research projects that examine changes in relationships over time. The unit also assists Institute investigators develop and evaluate observational assessments and procedures, as well as provides consultation in observational methodology for researchers at other universities. The unit's work is currently performed by 32 staff members: 20 Family Interaction Analysts, 3 Child Behavior Coders, 3 program assistants who serve as lead coders, a part-time data analyst, a part-time clerk, 3 student assistants, and a unit director. One of the program assistants also serves as the unit's associate director. Coders specialize in scoring parent-child or adult-adult interactions in discussion-based tasks, parent-child interactions in activity-based tasks, or child behavior in temperament tasks.

When initial research efforts began in 1988, the Observation Unit did not exist as a separate unit within a larger Institute. The eight graduate research assistants and one full-time staff member involved in observational coding also helped develop questionnaires, collect data, analyze data, and generate research reports. Drawing upon this team's experience rating 76 pilot-study families, they and three subsequently hired hourly coders spent six months in activities that lead to development of the first edition of *The Iowa Family Interaction Rating Scales (IFIRS)* (Melby et al., 1989). This observational system has since has been used to assess behavioral processes in over 28,000 interaction tasks at the ISBR. The *IFIRS* currently is in its fifth edition (Melby et al., 1998). Coders now specialize in coding a particular type of interaction task rather than coding all tasks for a given family.

As work demands increased over recent years, additional part-time hourly employees were hired; most current staff members are non-student employees. In 1992, coders selected the name "Family Interaction Analyst" as their official job title. The number of coding staff typically has ranged from 15-30, with a total of 115 persons employed in this capacity between 1989 and 2002. One full-time program assistant was added in 1990, a second in 1993, and a third in 1999. A part-time clerk, hired in 1994 to provide administrative support, became full time in 1997. A graduate student who works quarter-time as a data analyst provides analytic support for assessing quality of observational ratings. The unit director is responsible for administering and interpreting the work of the Observation Unit and is involved with other scientific activities within the Institute.

As the nature and scope of research within the Institute expanded, so has the work of the Observation Unit. In the beginning, staff members worked with tapes from one project at a time. During 2002, tapes from as many as four projects were worked on concurrently. Initially, staff applied the *IFIRS* to coding discussion-based interaction tasks that involved parents and adolescents, adolescent sibling pairs, or married couples. Later, this system was applied to young adults and their friend, significant other, or spouse in discussion-based tasks. In 1998, the system was adapted for scoring behaviors of parents and young children in activity-based tasks. Although developed using Midwestern Caucasian families, the system has been used successfully to rate behavioral interactions in Native American and African American families. The process of adapting the *IFIRS* to scoring different types of dyads and different types of interaction tasks has involved careful examination of behaviors displayed by each group and thoughtful consideration for how these observable behaviors may serve as indicators of operationally defined categories within the *IFIRS*. While scale definitions have remained consistent, attention has been given to understanding varying expressions of behaviors within each category. The insights of cultural informants and of persons experienced in working with young children have been particularly valuable in this process.

In 1998, work began on the development of a second scoring system, the *Home Temperament Assessment Battery (HTAB)* (Scaramella, Neppi, & Lloyd, 2002), for use in assessing child behavior in temperament tasks. Coders who specialize in scoring these interactions are undergraduate students employed on a quarter-time basis.

In addition to the observational services provided for researchers affiliated with ISBR, the Observation Unit provides consultation, training, and criterion tape scoring for researchers at other institutions. The number of such requests has increased dramatically in recent years. Responding to such requests is viewed as an important for communicating the work of ISBR to the wider research community.

In the future, the work of the Observation Unit will likely undergo other changes. Some anticipated efforts involve developing the capacity to use additional types of observational coding schemes, pursuing more research into psychometric properties of the current observational systems, applying the *IFIRS* and *HTAB* to other ethnic groups, and updated training materials for use within the unit as well as to enable us to respond to requests from researchers at other institutions.

The Observation Unit works closely with the Data Acquisition Unit, the Data Analysis Unit, and project investigators to provide quality observational data. In combination with project participants' own reports of behaviors and relationships, observational ratings help researchers study changes in relationships over time. As a result, the Observation Unit contributes important information about the ways in which to strengthen relationships.