Collecting Observation Data

The purpose of this training is to provide information for practitioners using observation for special education evaluations, including initial and re-evaluations, functional behavioral assessments (FBA), and monitoring IEP (Individualized Education Program) and BIP (Behavior Intervention Plan) progress. Observational procedures for research purposes are often more demanding and these suggestions are for practitioners and not meant to meet a research standard.

Collecting data involves a variety of techniques, including both direct and indirect methods. Examples of indirect data collection include interviews, record review, and examination of permanent work products. This training focuses on observational data, which is a direct method of data collection. When collecting information, it is important to use multiple sources and methods, and to triangulate the data collected. No one method stands alone. Therefore, evaluations will usually include multiple observations on one student.

Behavior always occurs in a *context*, and observing in that context is critical for defining and understanding the behavior. Observations may also help to identify the antecedents (what happens before the target behavior) and consequences (what happens after the target behavior) so that meaningful behavioral interventions can be developed. The data we collect during systematic classroom observations is used as a baseline, and/or present level of performance for an IEP. We might also use the data to evaluate whether or not an intervention is working. Observation is one method for collecting data for an FBA in order to answer the questions “*what function is the behavior serving for the student?”* or *“what is the student trying to communicate to us through the behavior?”* Thus, collecting data related to teacher and/or peer responses to the target student behavior is also important because that attention may be reinforcing the inappropriate behavior.

Behavior observation used for special education evaluation are primarily used to document the disability. Therefore, you want to observe where the student has the most difficulty. Keep in mind that observations are only snapshots of the setting and of the behavior. Students may be aware they are being observed, even though you try to keep a low profile, and may be on their best behavior. If this is the case, you can still gather useful information on the environment, and you will also know that the student has some idea of when to behave appropriately. On the other hand, the student may want to show-off for the new audience (i.e., the observer). There may be times of the day, days of the week, and/or specific activities that may be especially positive or stressful for the student. Observations can not stand alone, and should be combined with information from interviews, record reviews, and formal and informal testing when evaluating a student.

**Getting Ready to Observe**

* What is your purpose for observing?
  + Baseline
  + Data for developing an FBA/BIP
  + Monitoring IEP progress
  + Monitoring behavior change
  + Evaluation/re-evaluation including determining special education needs
* What do you know already?
  + What have you already seen for yourself as you walk through the building, are in the lunchroom, before and after school?
  + What existing information do others have?
* What additional background information do you want?
  + What activities will be going on while you are in the room? Is a new skill being introduced, or will the lesson focus on reinforcing previously presented information?
  + Will students be in large group, small group, working individually?
  + What are the classroom rules and expectations?
  + How does the target student typically behave during that time?
* Encourage the teacher to conduct business as usual, including consequences for inappropriate behavior. Ask how you should respond to students who may approach you or want to talk to you. It might be helpful for the teacher to acknowledge your presence and say that you are there to see how the class works (or something to that effect).
* Try not to disrupt the classroom routine – enter and leave at break times (e.g., lunch, recess) or at a change of activity, and don’t make it obvious who you are observing which could prompt the student to change their typical behavior.
* Ask the teacher about the concern or inappropriate behavior that has triggered the need for observation. Define the target behavior(s) clearly. For example, does “out of seat” mean the student must be completely out of the desk, or can the student be on his/her knees yet still “in” the chair? Be more precise than “aggressive behavior” by clarifying that it means hitting, kicking, or pinching. This determines what you will tally and what you will ignore. You are looking for specific, observable behaviors. See page 12 for suggestions on defining behavior.
* What dimensions of behavior are relevant or applicable in this case?
  + Frequency – how often does it occur?
  + Topography – what is the description of the behavior, what does the behavior look like?
  + Duration – how long does the behavior last?
  + Latency – how long is it between the time a student is given a directive and the time he/she began the action requested?
  + Magnitude – what is the force or power of the behavior?
  + Locus – what is the location?

**During the Observation**

**General hints**

* Check your biases and value judgments at the door – it may not be your style of teaching or preference for an approach, but you are there to collect objective data and to report on what you see and hear.
* Describe what you see in concrete terms. Jot down some general information about the classroom as you begin your observation: what is the physical set-up? are students squeezed together or do they have elbow room? how many students are there? what about natural distractions such as noisy heaters, windows overlooking a busy street, or hallway traffic? what is the teacher’s teaching style (e.g., lecture, hands-on activities, mixed media)? how does the teacher respond to misbehavior? how does the teacher reward or reinforce students? do students seem to know what they are expected to do, or do they have to be reminded? are teacher directions clear and understandable? are students passive learners, or are they actively involved in lessons? how many adults are there in the classroom? are students in and out for various activities? is there a lot of moving around the classroom or are students generally in their chairs? is the environment conducive to learning? is it a required class or an elective? are there interruptions such as daily announcements? are there any safety issues (e.g., scissors or other sharp tools readily available, objects that could be thrown, broken equipment or furniture)?
* Observe across settings and at a variety of different times for other observations. Observations are typically 20-30 minutes, but situations may dictate an observation to be longer, for instance if the student is displaying several inappropriate behaviors. Generally, observations for general classroom behavior may be 30 minutes. After 20 minutes of observation, the accuracy of the data tends to decrease. “Observer drift” is the tendency of observers to change the stringency with which they apply operational definitions and may result in recording instances of behavior that do not conform to the operational definition. The observations could take place at different times of the day, different days of the week, and during different activities such as academic classes, recess or lunch, and so on. When observing the student in settings where behavior is not a problem, try to identify the features of that context that support success and appropriate responses. Multiple observations also help give you a clearer picture of the behavior, rather than a one-time snapshot.
* Keep your recording system as simple as possible so that you can efficiently record information and decipher your notes later. It takes some practice to determine what method works for you, and to develop some shorthand codes such as “o” for out-of-seat or “p” for playing with an object without permission. Obviously, if you try to write things out in long hand, you will miss a lot of the action. You might want to use graph paper to easily create some simple charts.
* When observing a particular student, it is helpful to collect data on a second student of the same sex so that you can more objectively compare the incidents of misbehavior. If several students are wandering around the classroom, there may be a more general classroom management problem. If you know what the average out-of-seat time is for other students, you can compare the student in question to see if it really is a significant concern.

**Collecting data:** There are many different ways to collect data during an observation, and the more commonly used procedures are described below. Choosing which method to use may depend on your personal preference, the purpose of the observation, and the type of behavior being targeted. In some instances, you might want to use more than one method. For example, you might start with a narrative of the general classroom environment, the lesson or activity in progress, and the teaching style. Then you might do a time-sample to focus in on particular behaviors.

If a behavior is so infrequent that you probably will not see it in a 20-30 minute observation period, direct observation may not be the data collection system to choose. You still may wish to observe the classroom to get a picture of the physical environment and an overview of the class dynamics. Indirect data collection (e.g., interviews, review of existing information including records and work samples) may be more reasonable for documenting specific, infrequent student behaviors.

**Narrative recording:** this involves taking notes and simply writing down what occurs. It is not quantitative - there is no behavior count or number as a result. It is time consuming, but can be useful in providing a general description or detail (e.g., when Johnny tantrums, he drops to the floor face-down, screams, and flails his arms and legs; students sit in groups of 4 desks pushed together and facing one another).

**A-B-C:** divide your paper into 3 columns – “A” for “antecedent” in which you will record what preceded or precipitated the behavior; “B” for “behavior” which describes what the student did; and, “C” for “consequence” or what followed the behavior. The consequence for one behavior may serve as an antecedent for the next behavior, so you will have a running “stream” of actions. This format is useful for collecting data for an FBA. You can analyze the results and plan to prevent or avoid maladaptive behavior by manipulating the antecedents, and you can also intervene by altering the consequences. See page 11 for a sample of a completed A-B-C chart.

**Scatter plot:** a scatter plot is a good screening tool to determine when and where a behavior is likely to occur. See pages 9 for a sample format and page 10 for a completed example. Use event recording to tally the number of times a behavior occurs over the course of the day and week. You will then be able to look for patterns across days of the week, times of the day, activities, and so on. This information will help you determine some times and activities that might be most useful for gathering more detailed data. Be sure to include periods when the student is successful as well as problem times. Since this involved simply counting a behavior, it’s possible for a teacher to gather this information while teaching. Keep a running tally with slash marks in a corner of your teacher’s manual or other papers you may have in hand, put a strip of tape on your cuff and tally on that, put beans or coins in one pocket and transfer one to another pocket each time the behavior occurs – find a way that works for you.

**Event recording:** **counting the number of times** a specific behavior occurs during a given time period. Event recording is the easiest and most accurate method of data collection. The behavior you are tallying must have a clear beginning and end, take about the same amount of time whenever it occurs, and can be distinguished from another event or behavior. For instance, the observer tallies the number of times during a lesson that a student raises his/her hand. Event recording is not appropriate when the behavior occurs so often that it is difficult to count accurately, or if the behavior lasts for an extended period of time. With the latter, a tally does not accurately define the behavior. For example, if a student is out of his/her seat, the count might only be one, but it is important to know whether the time interval was 2 minutes or 20 minutes.

**Duration and latency recording:** duration recording measures **how long** a particular behavior lasts. An example would be a temper tantrum, where you may wish to know not only whether it happened, but how long it went on. It is more useful to know that a student was out of his/her seat for 20 minutes at a time, rather than just knowing that the behavior occurred. Latency recording documents the **amount of time between behaviors**. For instance, you might time the interval between the teacher giving a direction and the student complying with the request. Another example of latency recording would be to see how long the student remains in his/her seat before the next incident of wandering around the classroom.

**Momentary time sampling (a type of interval recording to estimate the duration of a behavior):** divide the observation time (generally between 10 minutes and 1 hour) into equal intervals (perhaps 2 minutes or another consistent interval), and then **record whether or not the behavior occurs at the very end of each interval.** You get an estimate of the duration or percent of time a behavior occurs. If you use simple symbols such as +/- or ✓/0 recording, it is easy to keep notes. You will need a watch or clock with a second hand, a tape that beeps at regular intervals, or a timer set to vibrate at set intervals. Interval recording is not an exact count of the number of times a behavior occurs, since it might happen twice during the interval, but you are only tallying whether (or not) it happened at the end of the interval. If you use interval recording, you can see the approximate number of times the behavior occurred, and the approximate length of time the behavior lasted (e.g., over 3 intervals, for just 1 interval). Be aware that when you look down to record, you may miss something.

**WRITING THE OBSERVATION**

A well written observation will:

* Use past tense when writing the observation;
* Write what you observe, not what you think;
* Use comparison to a typical student in the room;
* Know what you are observing… is it reading fluency, on-task behavior, math computation? Be able to define the target behavior in measurable terms;
* Document only what is relevant… we don’t need to know how many times Johnny stretched his arm over his head unless it was so frequent that it impacted his learning;
* Get hard data, such as scores, number or words read correctly, percentages of work completed, or percent of observed time on task (depending on what you are observing);
* Explain technical terms or names/programs associated with the school (is it understandable to all readers?);
* Spell out abbreviations and acronyms, including full titles of tests, rating scales, etc.;
* Explain what scores, numbers mean – the significance of the data;
* Avoid the use of names, especially other students’ names;
* Be proofread to avoid errors (remember, these are going into the student’s permanent file);

**Hints for Defining Target Behaviors**

A clear definition of the target behavior is important. When gathering data, you need to be clear about which behaviors will be tallied. Everyone working with the student should understand the definition of the behavior, and the parameters should be clear. For example, do we all have the same understanding for “profanity”? How will we know if the student is “off task” – everyone looks up from their paper now and then, we all have to pause to gather our thoughts, so when does it become problematic? A clear definition also helps you document progress, but you must be comparing apples-to-apples. Here are some tips for developing clear definitions.

* Describe what you see or hear; what the student says or does - avoid labels (“he’s a bully” or “she’s disruptive”). Be precise and use action verbs.
* Be objective - stay away from emotions or values (“she was angry” or “he was frustrated”).