

## **Module: Visual Supports**

### **Steps for Implementation: Visual Schedules**

Hume, K. (2009). *Steps for implementation: Visual schedules*. Chapel Hill, NC: The National Professional Development Center on Autism Spectrum Disorders, Frank Porter Graham Child Development Institute, The University of North Carolina.

#### **Step 1. Overall Classroom/Environment Schedule**

1. Teachers/practitioners display an overall classroom/environment schedule that indicates staff and learner assignments.

When developing the overall classroom/environment schedule staff must consider the following:

- the location where the overall schedule will be displayed (e.g., on the whiteboard in the front of the room, on a bulletin board),
- the format of the overall schedule (e.g., pictures, words, a combination or formats), and
- how/when the overall schedule will be used by staff/learners (e.g., Will staff reference it during morning meeting? Will learners manipulate it to indicate when activities are finished?).

#### **Step 2. Developing Visual Schedules for Individual Learners**

In Step 2, teachers/practitioners must complete a series of assessments to ensure that the appropriate schedule is developed for individual learners.

1. Teachers/practitioners conduct an individualized assessment of the learner's comprehension level, attention span, and sequencing abilities to select the appropriate **form of representation**.

The goal is for learners to use the schedule independently. Therefore, it is important for staff to choose a form that learners will be able to use independently after the initial teaching. Staff should choose from the following formats:

- a. objects that will be used in an activity (functional objects),
- b. objects that are symbolic of an activity (representational),
- c. photographs,
- d. drawing or picture symbols,
- e. words,
- f. phrases or sentences, or
- g. combination of the above formats.

For example, if a learner is able to understand two-dimensional representations (e.g., pictures in reading activity, matching pictures in an academic activity), staff may determine that photographs are a meaningful format for a visual schedule. If a learner requires three-dimensional representations to gain meaning from activities (e.g., not yet able to match photos in activities or respond to picture cues), staff should select objects as the appropriate format.

## **Module: Visual Supports**

Staff should be aware when choosing written formats that there is often a discrepancy between the decoding skills and the comprehension skills in children with ASD. Schedule format should be selected based on comprehension abilities.

2. Teachers/practitioners conduct an individualized assessment of the learner's comprehension level, attention span, and sequencing abilities to select the appropriate **schedule length and presentation format** (i.e., how much visual information will be visible to the learner at one time).

The goal is for learners to use the schedule independently so it is important for staff to choose a length that the learners will be able to use on his/her own after the initial teaching. Staff should choose from the following lengths and presentation formats:

- a. one item, signifying upcoming transitions;
- b. two items, presented left-to-right or top-to-bottom;
- c. three to four items, presented left-to-right or top-to-bottom;
- d. half-day, presented left-to-right or top-to-bottom; or
- e. full day, presented left-to-right or top-to-bottom.

Staff should keep in mind that if learners are not yet able to sequence, then presenting one piece of schedule information at a time is the appropriate length for initial implementation. In addition, many learners with ASD have anxiety about upcoming activities. The assessment process helps staff determine whether that anxiety is alleviated or exacerbated by the information on the schedule. Some learners benefit from seeing the sequence of activities that will occur throughout the day, while others benefit from seeing only several activities on their schedule at one time (too much visual information may be overwhelming).

3. Teachers/practitioners conduct an individualized assessment of the learner's comprehension level, attention span, and sequencing abilities to select the appropriate **method of manipulating the schedule**.

Staff should choose from the following:

- a. the learner carries an object that will be used in the upcoming activity,
- b. the learner carries an object/visual cue that represents an upcoming area. This object or visual cue is matched in the corresponding location (e.g., pocket, basket, envelope),
- c. the learner turns over the visual schedule cue/puts cue in a "Finished" location when activity is completed, or
- d. the learner marks off visual cue on schedule as completed.

If teachers/practitioners select functional objects as the appropriate schedule format for learners, learners will carry the object and use it in the next activity. For any other format (e.g., pictures, drawings, words), learners may manipulate the schedule cues in several different ways. Many learners benefit from carrying the schedule cue with them to the designated location and then matching the cue to a pocket or basket with the identical cue. Carrying the cue helps remind learners where they are going as they transition. Also, matching the item to an

## **Module: Visual Supports**

identical item lets learners know they have arrived in the correct location. If learners are able to remember where they are going without carrying the schedule information with them, they may instead indicate that the activity is finished before moving on to the next location. Learners may take off a visual cue and place it in a “Finished” pocket, move schedule cues into a “Finished” column, cross off items on a written schedule, or place a checkmark (✓) next to items when completed.

4. Teachers/practitioners conduct an individualized assessment of the learner’s comprehension level, attention span, and sequencing abilities to select the appropriate **location of the schedule**.

Staff should choose from the following:

- a. teachers/practitioners bring schedule information to the learner,
- b. a stationary schedule is placed in a central location (e.g., wall, shelf, desk), or
- c. the learner carries a portable schedule across locations (e.g., clipboard, notebook).

Learners who are new to schedule use, have difficulty with transitions, and/or have a limited attention span will likely be more successful if staff members bring schedule information to them. For example, if it is time for a learner to transition to the book center, staff would bring the schedule cue or the entire schedule to the learner. The learner would then carry that schedule cue with them to the book area. This is often most appropriate when initially teaching learners how to move through the designated spaces with the schedule cues. As learners become more adept in their transitions, staff may decide to place the schedule in a central location. When it is time to transition learners would go to the central location, get the schedule information, and then move to the assigned location. Finally, some learners may be capable of carrying their schedule with them from location to location. This requires a great deal of responsibility and organization as learners are required to keep up with the schedule at each location. This is often most appropriate for learners who are served in several locations (e.g. general education classes, resource classes).

5. Teachers/practitioners conduct an individualized assessment of the learner’s comprehension level, attention span, and sequencing abilities to select the appropriate **method to initiate schedule use** (e.g., transition from one activity to the next).

Staff should choose from the following:

- a. teachers/practitioners bring schedule information to the learner (as described above),  
or
- b. the learner moves to the schedule using a visual transition cue.

When it is time for learners to transition, teachers/practitioners determine how learners will initiate use of their schedules. When teachers/practitioners bring the schedule information to the learner, it is a clear cue that it is time to transition. If the schedule is placed in a central location or if it is portable, a visual cue is required to let learners know it is time to use their schedules and move to a different location. A visual transition cue should be developed and used with learners. This visual cue can be an index card with the learner’s name on it, a photo of the

## **Module: Visual Supports**

learner, the words “Check Schedule” typed on a small card, or any other cue the staff and learners find meaningful. Along with the cue, staff should make a pocket or envelope to hang next to the learner’s schedule or to place on the schedule binder/clipboard. When the visual cue to transition is given, learners carry the visual cue to their schedule, place it in the matching pocket, get the next visual cue, and then move on to the next scheduled location.

6. Additional elements are added to visual schedules as necessary:
  - a. color coding,
  - b. times,
  - c. alignment with school bells,
  - d. motivational components (e.g., pictures of favorite characters), or
  - e. behavioral cues (e.g., reminders about specific expectations).

### **Step 3. Organizing Visual Schedules for Individual Learners**

In Step 3, teachers/practitioners organize the visual schedule and related elements for the learner. This is accomplished by completing the following tasks:

1. Teachers/practitioners arrange the learner’s daily schedule prior to the learner’s arrival OR with the learner if the team deems appropriate. *For example, all materials needed for schedule use are ready and organized across settings (e.g., all objects/drawings/photos/written schedule items are gathered and presented appropriately).*

If objects are used it is helpful to organize these in a bin/basket. Alternatively, staff can wear an apron so the necessary objects are within close reach. If pictures/photos/written schedule cards are used it is helpful to gather all of the cards needed for the learner’s day and place them in a central location. Then as the learner needs them, they are readily available to place on the schedule or to give to learners. If schedules are written, it is helpful to have them written and ready before learners arrive.

*Note: In some cases it may be appropriate for learners to organize their own schedules. For example, learners may review a master classroom schedule when they arrive and then write/type their individual schedule for the day.*

2. Teachers/practitioners ensure that visual transition cues are in place, if appropriate.
3. Teachers/practitioners ensure that classroom/school areas are visually labeled with matching schedule components if appropriate (e.g., pocket with matching photo, object, icon).

## **Module: Visual Supports**

### **Step 4. Implementing Visual Schedules for Individual Learners**

1. Teachers/practitioners give the learner a visual cue to transition the learner to the schedule OR bring schedule information to the learner.
2. Teachers/practitioners teach the learner how to transition to the schedule with a visual cue AND/OR how to transition to a location with schedule information by:
  - a. standing behind learner when prompting use of visual schedule (to ensure learner is looking at schedule information, not the staff member);
  - b. placing schedule information in the learner's hand;
  - c. using only relevant language, identifying the location where the learner is going (i.e., "Play area" instead of "Come on, Steve, we're going over to the play area. I think you are going to love it!");
  - d. assisting the learner in getting to designated activity/location, and prompting learner to place schedule materials in appropriate location (e.g., to use the material if it is a functional object, or to match the material if appropriate);
  - e. ensuring that the learner remains in scheduled activity/location until next transition cue is given;
  - f. repeating steps "a" through "e" above until learner is able to complete this sequence independently across activities/locations; and
  - g. fading prompts as quickly as possible.
3. Once the learner has learned how to use the visual schedule, teachers'/practitioners' prompts are minimal during schedule use.
4. Individual learner's schedule use is consistent throughout the day.
5. Visual transition cue use is consistent throughout the day if appropriate.
6. Teachers/practitioners prepare the learner for changes in scheduled activities (e.g., visual cue to indicate a cancelled/new activity).
7. Individual learner schedules move with learners across settings OR elements of visual schedules are located across settings.

When information is presented to learners on their visual schedules, teachers/practitioners do their best to ensure that the activities will occur. Consider a visual schedule a "visual promise" to the learners. Sometimes, however, the unforeseen occurs and an activity that has been placed on a learner's schedule cannot occur due to a change in plans, staff absence, or weather changes (e.g., indoor recess, cancellations). When this happens, it is important that staff implement a procedure to teach their learners about the upcoming change. It is best to explicitly teach this process; in essence, to practice several "planned" changes before an unexpected change occurs. For example, learners may have a visual cue that indicates that math group is coming next on their schedule. The teacher/practitioner places a "CHANGE" card on top of the math cue and places a new schedule card on the schedule. When initially teaching this concept, it is helpful to remove a non-preferred item from the schedule and replace it with a preferred

## **Module: Visual Supports**

activity, such as computer. Next, teachers/practitioners change from a neutral activity to another neutral activity, and finally remove a preferred activity (such as recess) and replace it with a non-preferred activity (staying indoors).

8. Teachers/practitioners use a data collection system to record how learners use visual schedules. *Level of independence during use should be noted, as well as how learners have progressed through the various forms/lengths of visual schedules throughout the year (e.g., learners may use a short sequence of photographs at the beginning of the year, but as skills are gained, they may use a partial-day written schedule later in the year).*