

## **VISUAL SCHEDULES (CALENDAR SYSTEMS/TANGIBLE SYMBOLS/OBJECT CUES)**

Visual Schedules are ways of representing activities or sequences of events. They are used to help students participate in the design of their day. Activities or events may be represented by objects or pictures that stand for, or represent, something, including (from least to most abstract):

- Whole objects
- Parts of objects
- Associated objects (e.g. a towel to signify swimming)
- Textures or shapes
- Photographs
- Line drawings

There are several advantages to using visual schedules:

- Facilitates understanding – provides consistent, clear, concrete, and meaningful information
- The ability to look at a schedule or feel an object associated with the next activity helps develop anticipation and preparation for the activity
- Builds memory skills
- Helps with transitions between activities
- Improves ability to adjust to change – reduces frustration and anxiety
- Improves ability to predict events and activities by providing structure and organization for both the student and the assistant
- Helps to familiarize the student about the meaningfulness of symbols – leads to expressive use of symbols
- May be used to make choices for activities, allowing student to exercise control over their day
- Ultimately, it can lead to greater independence and increased self-esteem

A system needs to be tailored to your student's particular needs and environment. Sometimes, a classroom teacher may develop a visual schedule of daily/weekly activities for the entire class. A modified version can then be prepared for your student.

### **What do schedule systems look like?**

#### **A. Object cue systems**

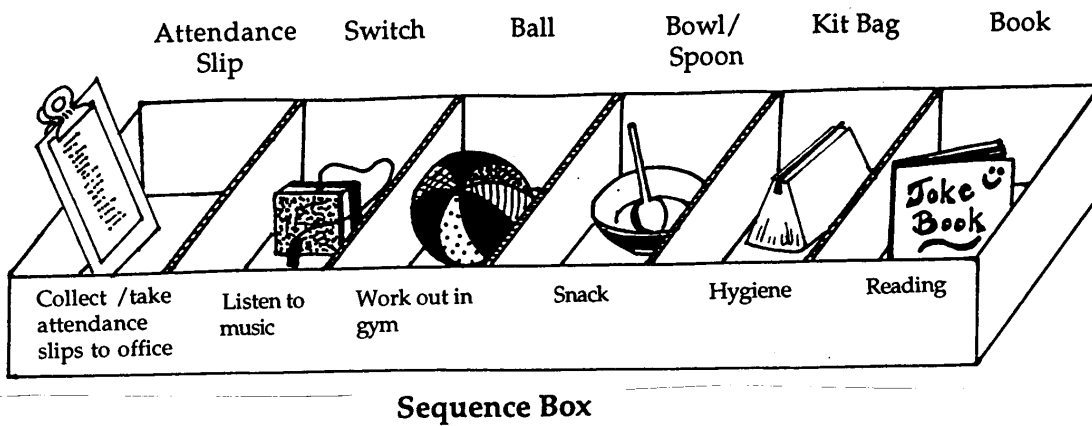
Tangible objects are selected to represent various activities. The objects must be meaningful to the student. They can whole objects (e.g. a cup for snack), or part of an object (e.g., a piece of a seat belt for going home). Boxes or baskets are placed on shelf, left to right.

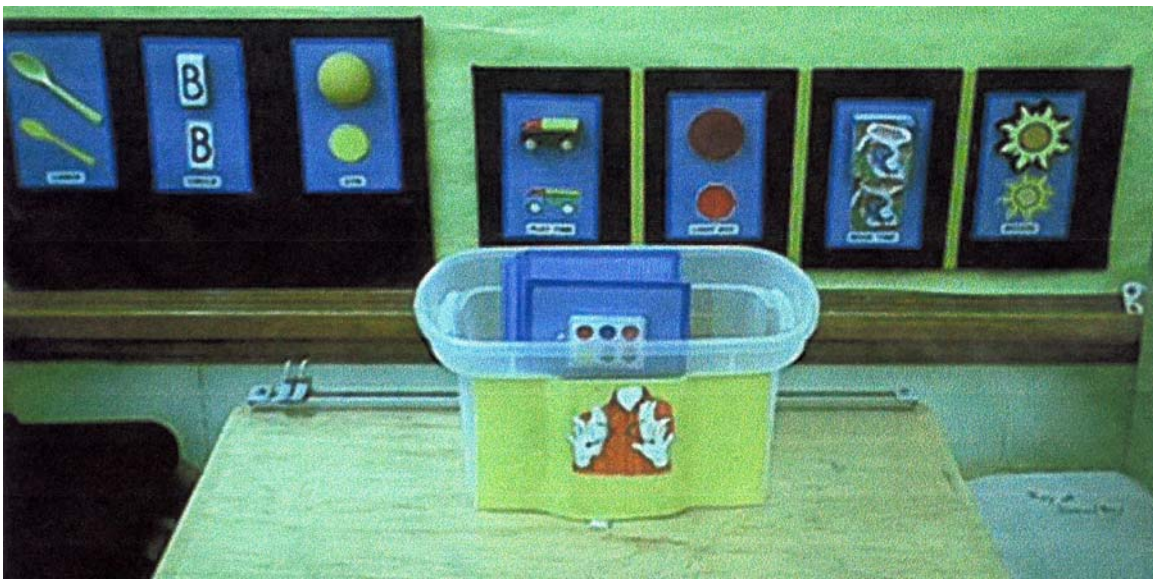
- Have the boxes/baskets clearly labeled, colour coded and accessible to the student, either visually or physically
- Representation objects are placed in boxes
- Student works through the sequence
- When an activity is completed, the object is placed in a “finished” box
- Photos or pictures symbols may be paired with the objects. The student can match a picture symbol to the one on the box/basket to help encourage understanding of symbolic communication

Advantages: Important concrete communication tools for students who do not process two dimensional material

Disadvantages: Not portable; sometimes difficult to locate appropriate objects

Examples





### B. Object-Picture Combination Systems

Similar to above, but picture symbols or photos are used in combination with the tactile object. They are used to help students make a connection between two- and three-dimensional representations.

### C. Wall systems

- Representational photos or picture symbols are sequenced left to right, or top to bottom

- Photos or picture symbols may be hung on hooks, attached with velcro, placed in pocket charts, placed on a blackboard by attaching magnets to the back of picture symbols or photos.
- At the end of an activity, the photo/symbol is turned over or placed in a “finished” box.

Advantages: Good for those who require large displays; good for developing skills.

Disadvantages: Not fully portable



Example of wall mounted combination tangible-picture visual schedule from a high school in Nelson, B.C.

The script for each activity is also posted with the object and picture cues.



#### **D. Single Page Books**

- Representational photos or picture symbols are placed in a mini photo album
- At the end of each activity, the photos/symbols are turned over

Advantages: Portable – can be placed in a fanny pack

Disadvantages: Does not show a full sequence; can only show one activity at a time

#### **E. Binder Systems**

- Store needed picture symbols on velcro strips attached to plastic sheets
- First page of book also has strips
- Have the student participate in finding the appropriate symbols for the activities that he is going to be involved in and place them in order on the front page
- At the end of each activity, the symbols are turned over or are placed on the back page of the binder
- Schedule is shown on front cover; extra symbols are housed inside the binder

Advantages: Portable

Disadvantages: Plastic pockets may be difficult for students with fine motor problems; can be cumbersome

#### **F. Portacom System**

- Worn around user's waist
- Made of velcro sensitive material
- Includes zippered pocket for placing symbols when activity is finished

Advantages: lightweight; handsfree; can also house other visual supports

Disadvantages: cost

Considerable thought needs to go into placement of the calendar system. It needs to be readily accessible to the student.

Schedules can have just two or three activities, the morning or afternoon sequence of activities, the entire day, or even the entire week. It depends on what makes sense to the student. The idea is to have the student feel comfortable with what is and will be happening, but not overwhelmed.

A schedule system often needs to start off slowly. For some students, have only object or one photo or one picture symbol that is used to pair with an activity. Calendar systems should be updated as the student's skills change. For example, a student may start with tangible symbols, but progresses to using both picture communication symbols and objects, then finally picture communication symbols alone.

When organizing sequences of activities, alternate less preferred activities with more preferred activities.

When using picture communication symbols or photos, include printed words as well. This helps to promote consistency between verbal cues given by different staff and peers, as well as provides a link to literacy acquisition.

The picture symbols can also be placed on the associated activity to help with developing understanding of symbolic communication. For example, if the activity is art, the picture communication symbol for art can be attached to the box of markers, so that the student can match the symbol on his schedule to the symbol on the markers. Place the picture symbol along side the activity as the student is participating in it and name the activity several times, so that an association builds up between the symbol and the activity. Keep the symbol in the same place – for example, velcro it to the corner of the desk.

A formal ending is an essential part of using a calendar system. A “finished” box or envelope is often used, with a symbol on it for “all done”. Have the student place the object or symbol in the “finished” container, and verbally tell him, “All finished” to develop an association between the activity and the language used. A timer can be useful to signal the end of an activity. This helps students who find transitions difficult.

To effectively and efficiently use this strategy, decide what are all of the meaningful activities which the student will be involved in with throughout his daily routine. You will not be able to select everything, so pick only those items which are most meaningful and motivating to the student and are also likely to be part of his routine for more than one year. Suggestions might be things like: mealtimes, toileting, music, story time, etc. There are often “surprises” during the school routine – activities that typically don't take place (e.g., a visit from the local police). It's useful to have a “surprise” or “something different” symbol to depict these situations. A geometrical shape, such as a star, is often

used because it doesn't get confused with other routine activities and can represent anything that is different from the norm.

Next, begin to select objects which could represent each of the activities. When selecting objects, try to pick items that are different from one another in that they are contrasting in size, shape, color and when possible texture. For example:

ACTIVITY	OBJECT
mealtime	cup
bus to go home	seat belt
gym/exercises	nerf ball
switch activity	brightly colored foam block that covers the switch
story time	book
music class	instrument that Bo can use with assistance (maraca, tambourine, etc.)
art	glue stick/scissors
tooth brushing	toothpaste tube
toileting	cosmetic bag or lotion

Once you have made your list of activities and found objects to pair with the activity, it suggested that all the pictures or objects be kept together so they are readily available for use. Some ideas for organizing materials are:

- Use a bin for objects
- Use a mesh bag for objects
- Use binder with Velcro strips for pictures or photos

*Example of a scripted routine for a calendar box:*

- Start the day by having the student participate in setting up the Calendar Box for a number of activities (part or whole day). For example:

*Attendance Routine:* Clip board, and photo of school secretary

*Bathroom:* Cosmetic bag and pic symbol of bathroom

*Computer:* Computer Mouse and pic symbol of computer

*Snack:* Wrapper from granola bar

*Outside recess:* Rock, picture of play area

*Reading:* Book

*Lunch:* Food container; photo of lunch kit

*Music:* Small instrument (e.g, maraca)

- As each new activity begins, start by telling the student that, "It's time to \_\_\_\_\_", and help the student to select the associated object from the calendar box.
- When the activity is finished, have the student place the object in the finished box or bag.
- Repeat above process for each appropriate activity.

The concept of "finished" is important and students need to learn and have a method of expressing this concept to others. Students need some method of indicating when an activity is "finished". Two options to consider are as follows:

- 1.) Pushing the object off a tray into a bag (this may require some hand-over-hand)
- 2.) Hand-over-hand assistance in putting the object into the bag so that the student can feel the bag.

Remember you will also be telling the student what is happening and using the word "finished" to facilitate learning of this concept and routine.

With repeated exposure, positive feedback and repeated pairing of the object with the activity, the student will come to anticipate activities when he sees the object. This process will also help to teach the student that activities have a start, middle and end to them.

Remember that the symbol needs to be paired frequently with the actual activity for learning to occur. Thus, during the activity, it will be important to pause the activity and re-introduce the symbol for the student to "look at" / "reach" / "touch" and then reinforce his response by going back to the activity and praising him.

Encourage your local speech-language pathologist to give input on vocabulary selection. As well, utilize the resources of your local teacher for the visually impaired when selecting tangible symbols for students with visual impairments.

If the student is able to recognize pictures/photographs then consider introducing some picture(s) paired with the object(s). Again, contact your local teacher for the visually impaired can assist you with picture size, type, etc.

For this strategy to be effective it is important that it be used at both home and school so that there is adequate repetition and practice as well as consistency.

Internet Reference

<http://www.designtolearn.com/pages/const.html> tangible symbol systems