

Promoting Communication Observation System

**Measuring Frequency of Caregiver use of Communication
Promoting Strategies and Child Communicative Behaviors**



**Juniper Gardens Children's Project
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About This Manual

The Promoting Communication Observation System (PCObs) is used to measure the fidelity with which parents or caregivers implement the Promoting Communication Strategies. The Promoting Communication (PC) Strategies were designed to be used with infants, toddlers, and preschoolers across daily activities in home and early childhood education settings, such as play, book activities, or daily routines such as meal time and bath time. The PC Strategies are naturalistic strategies that can be used by parents, teachers, care providers, early interventionists, and home visitors. Multiple studies have demonstrated that when used with high fidelity, the PC Strategies are effective in improving child language outcomes.

The PCObs Manual provides guidance around four aspects of the PC Obs: Observer Data Collection, Database Management, Report Generation, and Network Administrator/Technical Information.

Before You Begin

You will need the following in order to use the PC Observation System:

- Microsoft Access to import and export data
- Microsoft Excel to generate graphs and reports
- An Android device, such as a phone or tablet, to take data on
- Android device USB cord, to move data from the device to a computer
- The PCObs zip file
 - Pcobs2pt0.apk, the app installed on Android devices to collect data
 - PCObs Rate by Wave Chart, a Microsoft Excel file used for generating graphs and reports for groups
 - PCObs Rate by Date Chart, a Microsoft Excel file used for generating graphs and reports for individual children
 - PCObs.accdb, a Microsoft Access file used for importing data from the Android device and exporting data to the Microsoft Excel report files
 - PCObs Certification Calculator, a Microsoft Excel file used to calculate reliability when getting certified to use the PCObs System
- Internet browser to access tutorial and certification videos, and to download appropriate SQLite Drivers

In order use the PC Observation System, you will need the following team members:

Role	Description	Requirements
Observer	<ul style="list-style-type: none"> • Take observational data on Android device • Log observations, including changes and corrections to observational data collected • Turn observations in to database manager 	<ul style="list-style-type: none"> • Become certified on PC Observational System • Knowledge of observational data collection • General knowledge of Android devices
Database Manager	<ul style="list-style-type: none"> • Upload files from Android devices to Microsoft Access database • Use observer's log of observations to make corrections within database • Update Microsoft Excel files • Verify data had been properly uploaded before clearing Android devices and returning to observers 	<ul style="list-style-type: none"> • Knowledgeable in Microsoft Access and Microsoft Excel • Complete PCObs Access Database Tutorial • Familiarity with and ability to coordinate cycle of data • Knowledge of Android device, including how to move files from the device to a computer
Report Generator	<ul style="list-style-type: none"> • May be a coach, observer, and/or database manager • Uses Microsoft Excel Charts to generate observational data graphs and reports 	<ul style="list-style-type: none"> • Knowledge of Microsoft Excel, including the use of Pivot Tables to select data • Review Graph and Report Creation section of this manual

Network Administrator	<ul style="list-style-type: none">• One-time installation of PC Observation System files• Inform Database Manager about where files are located, and where the PCObs2.db file should be placed when moving from an Android device to a computer• Ongoing technical assistance, as needed	<ul style="list-style-type: none">• Advanced knowledge of computer networks, including how files interact with each other with the network• Ability to locate and install appropriate SQLite driver• Familiarity with all technical aspects of the PC Observation System process and files
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Getting Started

The following are the steps that must be completed before beginning data collection:

- Network Administrator must:
 - Download appropriate drivers
 - Install Microsoft Access & Excel files on Database Manager's computer or network
 - Determine appropriate location where Database Manager will upload app data files (PCObs2.db)
 - Ensure all file types (Access, Excel, and .db) are communicating properly
- Database Manager must:
 - Complete database tutorial
 - Communicate with Network Administrator regarding where app data files (PCObs2.db) should be placed when uploading data
- Observers must:
 - Install PCObs2pt0.apk on Android device, or consult local tech team member to do so
 - Become certified in the PC Observation System
 - Familiarize self with data collection process
- Program must:
 - Determine how different fields (such as ID fields) will be defined for the purpose of the current project
 - Decide which session length will be used for the duration of the study (how long the observation will be)

Observer Information: PC Observation System Instructions & Definitions

Observer Instructions: Preparing for the Observation

Directions: This section assists the observer in conducting the PC Observation System with caregivers (parents or teachers), using either Android system or using the paper data sheet (see Appendix A), after the observer has been certified to use the PCObs System. Please refer to the Observer Certification Section, beginning on page 32 for details on how to become certified.

The caregiver and child behavior will be recorded simultaneously for the entire observation length. You will record the session length before beginning. Selection of session length should be a team or collective decision and be consistent across all observations. During the observation, you will be documenting adult and child communication and interaction. At the completion of the observation, answer the questions related to Environmental Arrangement Strategies and complete any notes related to the observation.

Instructions to the Adult(s): Please explain that we are interested in observing how they typically interact, play, and talk with their child for ___ minutes (the length of your observation). The adult and child are free to choose the activity, although indoor activities generally work better than outdoor activities. Observed activities might include play, book reading, meals or snacks, diaper changing or toileting, dressing, or meal preparation.

Identifying the Observation: Prior to beginning the observation, complete the appropriate fields to identify the observer, child, wave, parent/educator/family service advocate, location, program, and whether interobserver reliability data are being collected. The “program” can be used to identify programs, groups, or classrooms as fit for your project. Please reference page 25 of the manual to see how your definition of “program” affects the graphs you are able to produce.

Prepare to Observe: Use the “Session Length (Minutes):” drop down menu to select the length of your session, as determined for your program. Use the “Initial Activity” drop down menu to select the activity in which the adult and child are currently engaged.

After the Observation: It is important to log your observations, recording any corrections that need to be made in the database. You may collect as many observations you wish before sending your observations to be uploaded to your database, but we recommend uploading at least every two weeks. When you are ready for the database manager to upload your observations, bring your device (Android phone or tablet) to your database manager, along with your observation log (Appendix B). In the case of a device failure, you may have recorded data on the paper PCObs form. If so, turn that in to the database manager, as well. The database manager will retrieve the data you collected, make any corrections you noted on the log, check for errors, and then return your device to you.

Observer Instructions: Observation Definitions

Activity Definitions: As part of the observation, the observer will identify what type of activity is being observed and record when/if that activity changes. Please use the following chart when determining which activity you are observing.

Activity Menu	Definition
Play	Child is playing indoors by self or with others.
Reading	Child is looking at or playing with books by self or with others, being read to in group or individual setting, etc.
Structured Activity	Organized activity in which caregiver initiates or directs planned activity. Examples included circle time, caregiver-led art project, cooking activity, etc.
Routine Care	Diaper changing, toileting, dressing, hygiene, etc.
Meal/Snack	Child is primarily engaged in eating and/or drinking.
Outdoor/Community Activity	Any activity taking place outdoors or in the community (outside of home or classroom).
Other	Please specify "Other" in text box at end of environmental items. You may decide as a group to use this as a set category to collect data on a specific activity, such as transitions, or use it to indicate the activity does not fall into any of the above options. It is helpful to make a note of what the "other" activity is in the comments box at the end of the observation.

A. Adult Talk

When coding items under Adult Strategies, record the frequency of occurrence of the following behaviors during the observation period.

ADULT STRATEGIES

A1. Comment and Label (Comment)

Caregivers provide comments about and/or labels people, things, and objects to which the child is attending, or when caregiver comments on child's actions. Caregiver describes what the child is doing as the child is pushing a toy car; describes what is outside the window in response to the child's pointing, or labels the toys to which the child gestures toward). *Comment* should also be coded if the adult comments about what the adult is doing with or to the child (e.g., "I am going to help wipe your nose," or if the adult comments on what the adult is doing during some joint activity, "We are going to wash our hands," "We are running so fast.") Each utterance of a comment or label should be coded.

Examples:

- When the child is playing with a toy, the caregiver describes it (e.g., "That truck has four wheels," "...is blue," or "...goes back and forth.")
- Caregivers use single word labels to describe toys or activities (e.g., "truck") when

the child is playing but not talking.

- Caregiver describes the children's current activities (e.g., caregiver says, "Look how you are making that blue color with your brush").
- Caregivers name objects to which the children point (e.g., toddler request the ball by pointing at it and the caregiver says, "Jane wants the big blue ball").
- Caregiver describes what they are doing with the child (e.g., lifting the child's leg or arm to help them dress, brushing their hair etc.).
- Caregiver says, "Here it comes!" while pushing a toy car toward child.
- Caregiver says, "I'm walking with you over to your friends so you can play with blocks too." (CG comments here on her action with the child)
- Child is standing at the window and looking outside. The caregiver says, "It's such a beautiful day."
- Caregiver responds to a child's singing by saying, "I didn't know you could sing."
- Caregiver labels letters of the alphabet while looking at letters in a book or on a toy. This is coded as a "comment/label" if the adult has a referent (i.e., a book, letters on blocks, letters on TV, etc").
- "B is for butterfly" is coded as one comment/label.
- Child points to a letter and CG says letter is coded as one comment/label.
- Counting objects or reading numbers is scored as "comment/label".
- While pointing to 3 separate pictures of balls in a book, CG says "One... two... three." This is coded as three comment/labels.
- Caregiver talks to the child what she/he is doing with the child. "It's ok, I will be gentle," while wiping nose.
- When adult is reading a book with the child: the text that is already in the book is not coded, however if the adult describes any of the text or adds information about the book that would be coded under Comment/Label.
- **NOTE: ABCs and 123s**
 - Reciting them in a series (without a breath between each number or letter), or singing them, without pauses between numbers or letters is scored as **1** instance of "LABELING" with or without a referent (e.g., with pictures of letters or numbers or without).
 - "A" (points to A), "B" (points to B), etc (each letter is scored as a one comment/label). So, if the caregiver labels each letter of the alphabet, this would be tallied as 26 comment/labels.
 - CG says, "One, two, three, four, five, you have five toes." (while pointing to each toe), this is coded as 6 comment/labels (one for each number, and then one for "you have five toes.")
 - If reading a book about ABC's or numbers and caregiver expands upon ABC's or number sequence by adding additional comments, questions, expansions then code accordingly.
 - The key distinction is going to be if the caregiver is referring to something. To be scored as a label, it needs a referent (written letters or numbers, objects, fingers, etc).

A2. Imitate and Expand (Imitate)

Caregivers imitate or expand upon the child's utterance by repeating what the child says (imitate) or adding additional information to what the child has said (e.g., C: "Up?" CG: "You want up please" "You are going way up high") (expand).

Expansions are a repetition that adds content or grammatically to an immediately preceding utterance. Part of the utterance is identical or similar to the preceding utterance and part is an addition of a word or phrase. Also includes when caregivers imitate or repeat the child's vocalization and/or utterance. The imitation should be an exact repetition, or almost an exact repetition, of what the child vocalized or said.

Examples

- The child says, "Baby." The adult repeats, "Baby."
- The child says something and the caregiver adds clarification or more complex grammar to what was said (e.g., Child says "Truck" and the CG says "Yes, that is a blue truck").
- Child says "Baa" and CG says "Bottle, here is your bottle."
- Child says "I want" and CG says "You want that" or "You want your blanket."
- Child says "Clouds" and CG says "Yes, those are clouds in the sky."

A3. Open-ended or "wh-" questions (OpenQ)

Caregiver asks open-ended questions (e.g., "What do you see?", "Who...", "When...", "Why...", "How...").

Examples of "wh" or open-ended questions:

- Caregivers ask child who what, when, where, why and how questions. "Where's your nose?" "Why did the fish feel sad?" "How old are you?"
- "What?" or "huh?" when the adult did not hear what a child said and is asking the child to repeat him or herself.
- "What do you want to do?" "What do you want?" "What do you like?"
- When caregiver is reading a book with the child: if the caregiver asks questions that are NOT already in the text of the book each question is coded as responsive.
- Forced choice questions should be coded as Providing Choices, not as "wh-" or "open-ended" questions. Examples of forced choice questions include: "Do you want apple juice or milk?" "Should we play with blocks or puzzles?"

A4. Yes/No, or Closed-ended questions (YesNoQ)

Caregiver asks Yes/No questions (e.g., "Do you want some juice?"). These are questions that, grammatically, would be answered with a "yes or no" answer. Requests for language that are phrased as a "yes/no" question should be coded as a "yes/no" question (e.g., "Can you say 'baby'?"). Using a question inflection without the correct syntax should also be coded as a question ("baby in the mirror?")

Examples of "yes/no" or closed-ended questions:

- "Are you a big girl?"
- "Do you want juice?"

- “Can you come here?”
- “Can you do that?”
- “Ready?”
- “Is there something you want to do?”
- “You want to play?”
- “Are you driving the car?”

A5. Praise and Positive Feedback (Praise)

Caregiver uses praise or positive feedback, including compliments when addressing the child on his/her behavior. Praise may be general or specific (e.g. “good job,” or “I like the way you stacked those up”). Positive feedback includes all positive statements such as, “You look nice today in that red shirt,” “I like how you are playing,” “Wow! Great job.” Prosocial comments (e.g., “Thank you,” “You are welcome,” and “Bless you”) also fit under positive feedback.

Examples:

- Caregiver states how much he/she likes the way certain children are acting (e.g., “Jane is sitting quietly,” or “John is doing a nice job sharing the crayons”).
- Caregiver says nice things about the child (e.g., “You’re such a beautiful girl,” or “I like how you are sharing the crayons so nicely.”)
- Caregivers tell children what they did correctly (e.g., “Johnny put his coat on all by himself,”) or otherwise compliment behavior.
- Caregivers use positive words such as, “You ate your breakfast, great!”
- Caregiver says, “Good.” “You are my sweetie,” “I like how you are playing with Cathy.”
- “Wow!”
- Infant is looking at CG, and CG says to an infant, “You love me, I love you too.”

Examples of Prosocial Comments include:

- Caregivers use formalized and polite words such as “please,” “thank you” and “you are welcome”. For example, while the cg passes out food to each child, her/she says “thank you” to promote the use of those prosocial words.
- If “please” or “may I ___?” is used as part of a question, it is coded as a question, rather than Praise and Positive Feedback.

A6. Choices (Choice)

Caregiver verbally presents a choice to the child, providing opportunities for the child to communicate their preference or selection. Choices should be explicit, and verbally stated.

Examples

- Caregiver asks, “Shall we paint with the red paint or the green paint?” or “Do you want to sing Old MacDonald or Twinkle Twinkle?”
- If questions are rephrased to become more specific, they may be coded as both *Questions* and *Providing Choices*. For example, “What do you want to drink? Do

you want apple juice or milk?” would be one instance of a question and one instance of choice.

- During play, the caregiver provides the child with opportunities to choose one activity out of many (e.g., when caregiver states that the child or children can choose one of four centers to play in, or one room or activity, one choice should be coded.
- During mealtime the child is given the opportunity to select from several different foods that the caregiver presents to him or her (e.g., caregiver says, you may choose chocolate chip or peanut butter). Note: If the foods (or toys) are all just placed on the table and the child can take any of them, this would not be coded as *Choice*.
- During reading time, the caregiver asks the child to select the book to be read from two or more books.
- During reading time, the caregiver gives the child a choice between reading the book with the caregiver or reading individually.
- Simply saying “What do you want” is not a choice. This would be coded as an open-ended question.

A7. Time Delay (TimeD)

Caregiver uses time delay or “fill in the blank” to promote communication. Time delay is coded if the caregiver inserts a pause either before or inside of an utterance to the child. For example, the caregiver may pause briefly after presenting a toy to a child to wait for the child to ask for assistance to work the toy, or the CG might begin a familiar rhyme or story, and then insert a pause to let the child fill in the missing word(s) (e.g., “Twinkle, twinkle, little _____”).

Examples

- During routine care or diapering, the caregiver might say, "These are your arms; These are your...." and then wait for the child to say fingers as the teacher is pointing to the child's fingers.
- While reading familiar stories, the teacher may pause at points in the book where the child is familiar with the story, giving the child the opportunity to finish sentences or name familiar characters or items in the pictures. For example, while looking at a book of animals, the teacher might point to the tiger, and then say "here is the....", giving the child the opportunity to say "Tiger."

OTHER ADULT TALK

A8. Talk to Other Adult(s) (Tik2Adult)

Caregiver who is currently interacting with the target child, or in closest proximity, is talking to adults. This might include classroom planning discussions, coordination of ongoing activities or care, talk unrelated to child or classroom activities (e.g., social talk), or talking on the phone (e.g., cell phone and classroom phone). Code each utterance or sentence as one instance of “talk to other adult.” Each sentence or utterance is tallied. A longer utterance consisting of two sentences counts as two

behaviors in this category (e.g., “Did you change Ethan’s diaper? He seems fussy” is counted as 2 behaviors in this category.)

A9. Talk to other child(ren) (Tlk2OthCh)

Caregiver talks to other children, and this does not include the target child. Code any talk that is directed to any child(ren) *other than* the target child, and not directed at the target child, regardless of content or topic. Note that talk that is directed to a group of children that *includes* the target child should be coded as talk directed to the target child, and NOT as “talk to other children.” Code each utterance or sentence as one instance of “talk to other child.” Each sentence or utterance is tallied. A longer utterance consisting of two sentences counts as two behaviors in this category (e.g., “Are you hungry? What did you have for breakfast?” is counted as 2 behaviors in this category, as long as it was directed at a child who is not the target child for this specific observation).

A10. Directions, Instructions, or Requests for Language (Directn)

Caregiver provides directions, instructions, or requests for language to the target child. This is coded when the caregiver is instructing or directing that a child do some action (e.g., “Come here right now” or “Give that to me please.”) This includes instances when the CG directs the child to action as in “Go put the toys away” or when the CG instructs the child to say something or to vocalize (e.g., “Say ball”). This includes directions that are given in a positive, neutral or negative tone. For instance, “Stack this block” during play, and “You sit down!” in a scolding tone are both coded here.

Examples of Directives:

- Caregiver asks the child to “Say Mama,” “Say dog,” “Say all done” “Say you are sorry to her, it isn’t nice to hit our friends.”
- “Come here please.”
- “Put that down,” “Give that back,” “Sit over there.”
- “Hurry, hurry, hurry” while running to go outside and laughing.
- “Come on, come on, come have a seat” while having children come to the table.
- “You need to come with me to the bathroom.”
- “Let’s go sit down” or “Let’s clean up now.” “Let’s go to bed.” “Let’s go change your diaper.”
- “Let’s play a game.”
- “Come on, let’s say our ABCs.” Or “Come on, you do it.”
- “Look at that!” “Look at the bird!” “Look, there’s a car” (even though its function may be to label an item, if the adult is telling the child to look at something, code this as a directive.)
- “You do it” or “Do it for me”
- **Note:** There may be instances in which the CG says a child’s name as a way of directing them to do something (e.g., Alex, go get your coat on but the CG only says “Alex” because they had already given a general direction to the class. This would be coded as a Directive. In cases where the CG says the child’s name to have them stop doing something (“Alex!” when the caregiver wants the child to stop kicking the wall,

this would be coded as Prohibition).

- Caregiver says, “Give that to me now! “You get over here now!”
- “Say you are sorry to her right now, you don’t bite your friends!!” said in a overly harsh manner while standing over the child and pointing. (Coded as one Directive and one Prohibition even though they run together when the CG says it).
- Caregiver says, “It’s not your food” or “That’s not safe” to discourage certain child behaviors.

A11. Disapproval, Prohibition, Negative Talk (Disappv)

Disapprovals, prohibitions, or negative talk is coded if the caregiver says something to the infant/child that indicates that the child should stop some activity or to stop saying something. Negative talk includes comments or questions that criticize, belittle, or shame the child, that are sarcastic, that indicate that the child is doing something on purpose to make the CG angry, or that is said in an angry or frustrated tone of voice or with negative affect and/or negative nonverbal behavior (e.g., roll eyes). Adult statements referring to disciplinary actions are also coded in this category.

Examples of Prohibitions:

- Caregiver says, “No!” “Don’t do that,” “Get away from here.”
- “Shut up”
- “Bye” (When CG uses this to indicate the child should leave).
- “Quit saying that”
- “Stop singing that song.”
- “You better put those down!”
- “You better not think about doing that!” (as child is about to do something the adult does not want the child to do).
- “I don’t want to see that.”
- “Alex!” (CG says child’s name in a tone indicating they want the child to stop doing something). Note: There could be instances where the CG says the child’s name to have them stop doing something and other times when the CG says the child’s name to have them do something as in (Alex, go get your coat on but the CG only says “Alex”). In the second example, this would be coded as a Directive.

Examples of Negative Feedback or Negative Talk:

- Caregiver says, “You are not a nice girl today.”
- “You’re whining again.” “Stop your complaining.”
- Caregivers state how much they dislike the way certain children are acting (e.g. “Once again Jane is not sitting in her chair”).
- Caregivers say negative words about children (e.g., “You are being bad”).
- “You are just doing this to make me angry.”
- “You are being mean today.”
- “Mommy doesn’t want to play with you anyway” in a sarcastic tone.
- Caregiver says the following in an angry tone, “You need to listen to me! You’re being bad!”
- Caregiver says, “You eat what’s on your plate and don’t ask for anything else!”

Examples of Disapproval:

- “I don’t like it when you hit.”
- “You make me so angry. You need to listen!” (disapproval and instruction)
- “Didn’t you just go?” (When child asks to go to the bathroom and CG responds with frustration and displeased facial expression).
- “I’m not playing this game!” (in response to child misbehavior).

Examples of Discipline Statements:

- “You are in time out, go over and sit down.”
- “You come over here and think about how we treat our friends.”
- “I’m going to get the belt!”
- “You’re getting a spanking.”
- “I’m going to take those away.”

Non-Coded Talk

Caregiver talk that does not fit into any of the above categories is **not** coded.

Examples:

- Child is looking at a book. Caregiver sits down and says, “It’s such a nice day.”
- Child is sitting on the potty. Caregiver says, “I’m so sleepy.”
- Phrases, such as “here you go,” “here,” “there you go,” “Yeah,” or “OK.”
- Filler words, such as “mm-hmmm,” “uh-huh,” “mmmm,” “uh-huh,” “uh-uh.”
- Caregiver is talking to self.
- If child/caregiver drops something and caregiver says “Uh Oh” this is not recorded. If caregiver says “Uh Oh, you dropped the toy” this is recorded as a comment.
- Caregiver recites alphabet or numbers, without referring to letters or numbers (e.g., written, signed, actual items). For example, “One, two, three, four, five” without referring to actual objects, or numbers in a book. The main determinant of whether counting or the alphabet is scored or not is whether there is a referent.

B. Child Communication

B1. Gesture (Gestures)

A physical movement made by the child in an attempt to communicate with a partner. Count each instance of a gesture.

Examples:

- Giving or showing objects
- Pushing away or rejecting an object
- Reaching toward a partner or object the partner is holding
- Pointing toward an object or person
- Nodding or shaking one's head, shrugging shoulders.

B2. Vocalization (Vocalizn)

A non-word verbal utterance voiced by the child may be directed toward a partner or to themselves. An episode ends when there has been a clear break of at least one second without vocalization. One second or breath in between vocalizations distinguishes different vocalizations. Laughing is scored as a vocalization. Score one laugh as one vocalization, but if the child takes a breath and begins laughing at something else that is funny, score this second laugh as a second vocalization. To score laughing, if the child takes a fairly large deep breath or pause (like they are waiting for the play partner to do something "funny" again), and then starts laughing again, this would count as a new vocalization. If they take just a quick little gasping breath and keep laughing at the "same" thing, this would count as one vocalization. Crying should not be counted as vocalizations.

Examples:

- Animal sounds, e.g., moo, when looking at a cow
- Transportations, motor sounds, e.g., vroom when pushing a tractor
- Blows to ask for more bubbles
- Sounds such as "ah," "da," "eee," etc.
- Sounds such as "mmm," or "um."
- Laughing at the play partner's actions

B3. Words (Words)

Single-word utterances voiced by the child that are understood.

Examples:

- Child says "car."
- A vocalization in which only one word is understandable
- Continuous sequential repetition, e.g., go, go, go" (code only one)
- Compound words, e.g., "mailbox," "necklace" (code only one)
- Ritualized duplications, e.g., "bye-bye," "uh-oh," "night-night" (code only one)
- Two-part proper names, e.g., "Big Bird," "Mary Jane"

- Sequentially describing or naming objects, e.g., “block, red, blue, girl” (code one for each word).
- Standard sign language, code as appropriate single words
- A child hits a switch on an augmentative communication device to indicate “more” or “yes.”
- Answering a question with “uh-huh” as a “yes” response, or “oh” in response to a statement. *Other responses that are not considered true words are coded as vocalizations (e.g., “mmm” or “um”).

B4. Multiple-word utterances (Multiwds)

A multiple-word utterances is a combination of two or more different words voiced by a child that are understood. An utterance consists of a sentence or a single thought.

Examples:

- Words should fit together in a meaningful way, e.g., “big truck”
- Does not need to be grammatically correct, e.g., “Me go to store.”
- Does not need to have adult meaning, e.g., “Cow rides tractor”
- Standard sign language, code as appropriate for multiple-word utterances.

Note: When the observer cannot understand what may be a word or multiple-word utterance, score the highest category that can be understood. For example, code “da ba da” as a vocalization. Code “na na na ball” as a word (ball). Code “Mama, I want the ba da ba da” as a multiple-word sentence. In some cases you can use the context to determine what a child has said. For instance, if a child says, “goggy” and points to a dog, this will help you determine that the child intended to say “doggy”. Again, if the child points to yellow and says, “yeyow” or “lello”, you can code the child’s word as “yellow.” However, if a child says something you do not understand, but the adult seems to recast or imitate what the child says, do not use these imitations or recasts, or any other adult response to infer what the child is saying. For example, if the child says something that is not at all understandable and does not sound like milk or bottle, and the caregiver says, “You want milk?” you should NOT assume the child said milk or bottle merely based on the adult response.

If the child is reciting numbers or the alphabet, and you can only understand a few letters or numbers, score the ones you are able to understand as words. Do not score letters and numbers as words unless you understand them or they are clear approximations of the letter or word (i.e., “tree” for “three” can be scored as a word, but “ee” for “three” would be scored as a vocalization, but not as a word).

Notes:

Observations when Child is in a Group: If caregiver talks to the whole class, including the target child, the language should be coded as if it were directed to the target child unless the

child is clearly not attending (e.g., on other side of room being changed or playing with peer away from caregiver).

Note: If a caregiver uses a single word or phrase repetitively, discrete occurrences of the language are recorded if there is a 3 second pause between the words/phrases, if the caregiver takes a breath between words/phrases, or if the caregiver varies the language within the phrase.

Examples: CG quickly says “Go, go, go” → recorded as a 1 directive
CG says “Let’s go…… let’s go…… c’mom” → recorded as 3 directives
CG says “Go, go.... (breath) go” → recorded as 2 directives

Adult Singing: Do not code singing unless the singing involves the use of a specific Promoting Communication strategy. For example, “Twinkle, twinkle, little _____” would be coded as a “Fill in the blank” because the adult is using the fill in the blank/time delay category and she happens to be singing. If an adult singing “Eli has a red shirt, red shirt, red shirt, Eli has a red shirt today” that would be coded as one comment/label. If the adult is just singing as song, such as “Mary Had a Little Lamb,” this is not coded because no language-promoting strategy is being used. This is similar to when the adult reads a book to the child. Reading words in a book is not coded, but when the adult comments on a picture in the books, asks a question about the story, or utilizes time delay when reading, those are coded as comments, questions, or time delay. Please note if child and adult were engaged in singing in the text box at the end of the environmental items, indicating the approximate length of time spent singing.

Note: If a caregiver calls a child’s name, the language should be coded according to its function. For example, if a CG calls a child’s name after the child climbs onto the table (in an attempt to tell them to get off the table), the language should be coded as a prohibition. If the caregiver had given the child a one-minute warning before bringing the child to the potty, then after one minute the CG called the child’s name from the bathroom, the language should be coded as an instruction (calling the child to come into the bathroom). If the CG calls a child’s name to distract the child in order to stop crying, do not code.

C. Environmental Arrangement

Following the 15 minute observation period, complete the following environmental arrangement items for the whole observation period.

Daily Schedule and Transitions

C1. Adult facilitated transition(s) by announcing changes/directions

Caregiver announces transitions either to the individual child or a group of children. The caregiver must announce the actual activity. It is not adequate for the caregiver to just say, "Now we're going to do something fun." The caregiver might say, "We are going to clean up before we go outside," "It's time for lunch," or "Let's go change your diaper." If there are multiple transitions during an observation, the caregiver must announce at least one of these transitions to the target child for a "yes" to be scored. If there are no clear changes from one activity to another, code N/A. For example, the caregiver and child play Candy Land for the whole 15 minutes, or lunch lasts the full 15 minutes. If they move from lunch to play time, this is a transition. Or, if the focus of their attention changes, such as from a board game to playing ball, this would also be a transition.

C2. Child(ren) experience excessive waiting times between transitions

For transitions involving the target child, there are excessively long periods of time in which the child is expected to wait, and is not engaged in an activity, or the transition itself. The caregiver does not support the child in becoming engaged in the transition or some other activity (e.g., a toy, a song, a task, talk), or allow the child to remain engaged in an activity to span some of the time of the transition (e.g., child is looking at a book or playing with a peer).

Reading and Books

C3. Children's books are accessible

Children's books are accessible to children during the observation. The books do not need to be located in a particular place in the room, but just need to be accessible to the child. Code "no" if there are no books within reach of child(ren), including if **only** a tablet is accessible and no physical books are accessible. Code "no" if there are no books, or if the child could not access the books without the adult's help. Do not code N/A for this item.

C4. Adult looked at books with child

The adult looked at one or more books with the target child during the observation. This might involve reading a book to the child, looking at the pictures together, or using an electronic reader or book on a tablet device. The caregiver must be involved with the child's book activity. If the caregiver just hands a book to a child and does not look at it with the child, this would be coded "no." Do not code N/A for this item.

C5. Child looked at books alone or with peers/siblings

The target child looks at one or more books either independently or with other children. The child may also be playing with a book, although not specifically looking at or reading the book or the child may be using an electronic reader or book on a tablet device. Do not code N/A for this item.

Social Environment

C6. Adult facilitates social interactions and/or cooperative play with children and/or adults

Adult supports or facilitates children becoming engaged in social interactions with other children and/or adults, such as by selecting activities that encourage social interaction or cooperative play, inviting other children to become engaged in an activity, or commenting on or praising child social interactions and cooperative play. This might include selecting toys or activities in which the caregiver and child can interact, AND actually interacting with the child in that activity, or making positive comments and providing positive feedback when a child is interacting with his or her siblings. Score a “no” when the caregiver does not encourage social interaction through selection of materials, engaging in cooperative play, or missing opportunities to encourage reciprocal interactions. Do not code N/A for this item.

C7. Electronic devices (TV, computer, tablet, etc) are used in a manner that facilitates social interaction

Adult uses electronic devices (e.g., television, computers, tablets, video games, and smartphones) in a manner that facilitates adult-child social interaction. This item focuses specifically on electronics or media such as television, tablets, or smartphones, and includes children’s versions of these electronic devices, such as Nabi, Leap Pad, LeapFrog Smartwatch. This does not include toys which are simply battery powered and light up and make noise (e.g., a play phone or laptop toy that beeps and says letters). The focus of this item is on HOW adults’ use these items with children. When adults play the games with the child, talk about the game, help the child, use the PC strategies during a game (e.g., ask questions, comment, etc), score “Yes”. When children or adults are using electronic media alone, without social interaction, score this as “no.” Code “yes” if the media is used interactively by the adult and the child together. Use N/A if no electronic devices are used at all during the observation.

C8. Excessive competing activities taking place

Factors such as a loud television, loud music, excessive crowding in the home or classroom, and/or loud conversations interfere with the ability to engage in interactions with children for most of the observation time. Focus on how the environment effects social interaction to score this item. Do not code N/A for this item.

C9. Excessive use of electronic devices

Adult engages in excessive use of the cell phone, tablet, or computer in such a way that it reduces opportunities for adult-child observations. For instance, the adult checks her phone

for text messages, talks on the phone, or is on the computer during the observation. Code “yes” if, within 15 minutes, the adult looks at or engages with the device on three or more occasions OR if the adult spends more than about 2 minutes engaged with the device throughout the observation. (Adjust upward for longer observations and downward for shorter observations.) This could be coded when the child is engaged or not, but the focus of this item is on adult use of devices which may inhibit or prevent adult-child interaction. Also code “yes” if the adult is using electronic devices while the child is attempting to engage with the adult. For example, the child is telling the adult about her picture, and the adult is reading an email and may or may not be listening. If the adult and child are engaged with the electronic device together, this would NOT be coded as “yes.” Do not code N/A for this item.

C10. TV on in background

The television is on for most or all of the observation, but there are no other competing activities as described in C7 above. This would be rated “yes” even if the television volume is not excessively high, but on throughout the observation. Code “no” if the television is functioning as a radio (e.g. on a music-only station that does not play music videos). Do not code N/A for this item.

Materials and Physical Environment

C11. Room arrangement and materials arranged to facilitate social interaction between children and adults

Play areas are accessible and organized to facilitate social interaction. Multiple toys or materials are provided as needed, and the space is fairly uncluttered and organized. Some toys and materials may be stored such that they are visible but out of children’s reach to encourage requesting. Do not code N/A for this item.

“YES” EXAMPLES:

- Toys with pieces are kept together. (Blocks are in tub together, puzzle pieces are with rest of puzzle, etc.)
- Toys are kept in distinct locations.

“NO” EXAMPLES:

- Materials to engage child and adult together are not available.
- Materials are scattered about the home.
- Room is organized in such a way that the child cannot bring materials to the adult to play together.

C12. Child able to access a variety of toys and materials

Children are allowed access to a variety of toys and materials. They do not need free access to all materials, or access to other materials at all times throughout the day, but when the current activity allows, caregivers provide a variety of toys and materials. This also includes providing toys and/or materials requested by the child, when appropriate. For instance, during free play, there are a variety of types of toys available to the target child, such as trucks, blocks, and dress up toys. If the target child requests an additional type of toy during this time, and this toy seems appropriate (i.e., child requests dinosaurs, and not finger paints), the caregiver provides this toy to the child. The caregiver does not need to provide the requested

item if it is not appropriate at the time (i.e., paints, glue and glitter, food during free play, or toys and books during lunch). Do not code N/A for this item.

C13. Physical environment is overly cluttered or unsafe

Child's physical environment (living areas, play areas, classroom) are overly cluttered or unsafe. This might include play areas where there are so many toys or other household items that the child cannot easily play or navigate the space, or there are excessive household items, boxes, clothing, etc that make it difficult or unsafe for the child to play, Rate this item as "yes" if clutter in the physical environment would be considered excessive, and significantly impedes the ability of the child to move through the space or play. Do not code "yes" if there is clutter, but the child is able to have safe, ample play space. Do not code N/A for this item.

Notes on the Observation

At the end of the environmental arrangement items, you will see a page that reads, "Please describe any unusual situation regarding the observation session of the child you just completed." Use this space to enter notes you feel are important into the text box, including time spent singing, corrections, unusual interruptions during the observation, etc.

Using the PCObs Application



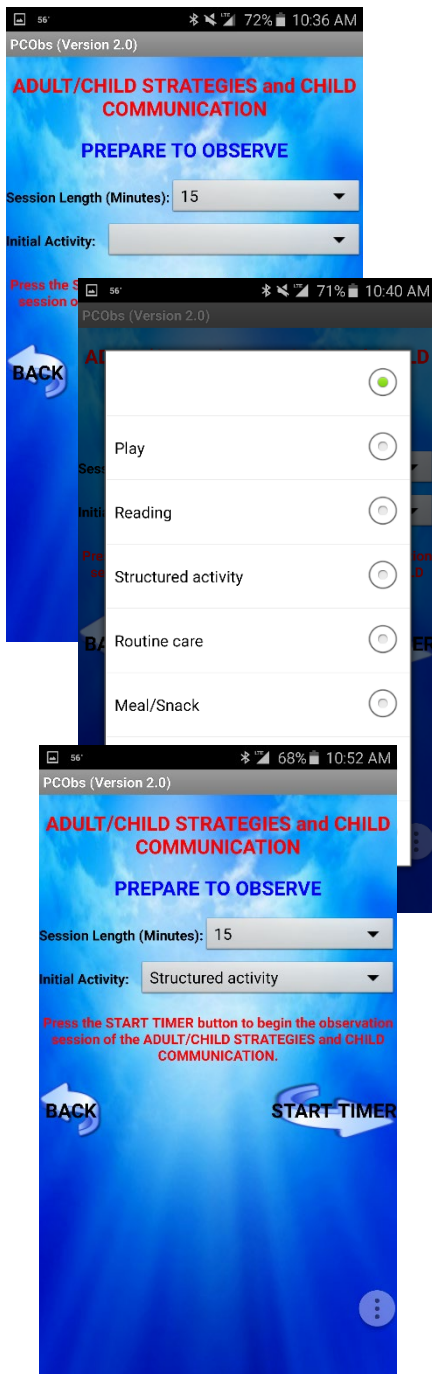
Observer Information: Using the PCObs System App

Data Collection – Observation Session

1. Enter the information for the observation session:
 - a. Change the **Date**, if necessary
 - b. Enter the **Observer ID**, **Child ID**, **Child Description**, **Wave**, and **Caregiver #1 ID**
 - c. If there are any additional caregivers present, enter the **Caregiver #2 ID** and/or **Caregiver #3 ID**
 - d. Select the **Location**
 - e. Enter the **Program ID**
 - f. Change the selection for **Reliability**, if necessary – it is set as **Primary** as a default
2. Click the **NEXT** button

Field	Definition
Date	Date of observation
Observer ID	Unique identifier assigned to current observer, remains consistent throughout data collection
Child ID	Unique identifier assigned to child being observed, remains consistent throughout data collection
Child Description	Open-ended field used in whatever manner the program deems appropriate or useful
Wave	Usually a number representing groups of data, wave is defined by the program, and may or may not be used depending on the needs of the current project. Each participant (Child) should only have 1 observation for each wave. Note: Wave must be used if the program desires to group observations for graphs and reports. For examples, if the program wishes to generate a graph for all of the children in Classroom A, wave is required.
Caregiver IDs	Unique identifier assigned to teacher/parent/caregiver being observed; remains consistent throughout data collection
Location	Home: Observation takes place in a home, not a home daycare Center: Childcare center, preschool, or home daycare Other: Community setting not listed above
Program ID	The program will determine how this field is used; consideration should be made regarding what type of group reports will be generated, as this field will be used in the Microsoft Excel Chart by Wave to provide grouped data. Consider using the Program ID to identify programs if you want to create graphs and reports for whole programs. Assign Program IDs to classrooms if you want to create graphs and reports that combine data for each classroom.
Reliability	If you are collecting interobserver reliability, determine which observer will choose “Reliability” and which will be “Primary”

Data Collection – Prepare to Observe



1. Change the **Session Length**, if necessary – *it is set for 15 minutes as a default*

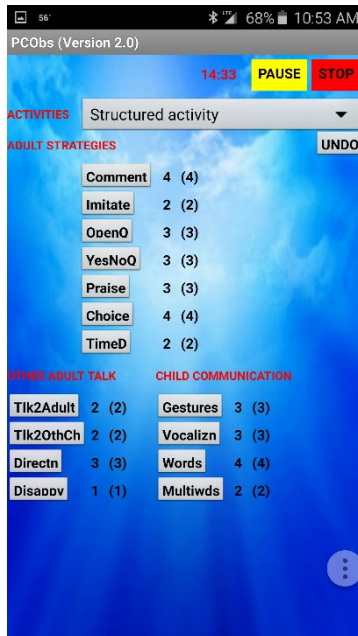
Session length must remain consistent throughout data collection. Determine session length (how long the observation will be) with your program before beginning data collection.

2. Select the **Initial Activity** - pull down the menu and select an activity from the list shown. It should be the activity in which the adult and child are currently engaged.

Refer to page 10 for a list of activity definitions.

3. Click the **START TIMER** button to start the timer for observation

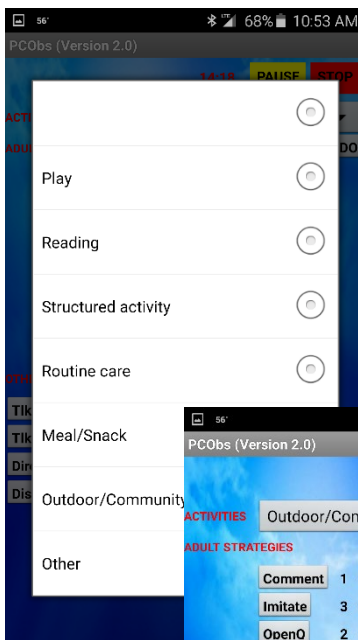
Data Collection – Adult/Child Strategies & Child Communication



The **ACTIVITY** shown at the start of the observation will be the **Initial Activity** selected BEFORE the timer starts.

All **ADULT STRATEGIES**, **OTHER ADULT TALK**, and **CHILD COMMUNICATION** buttons will be active, with their corresponding frequencies initially set at 0's.

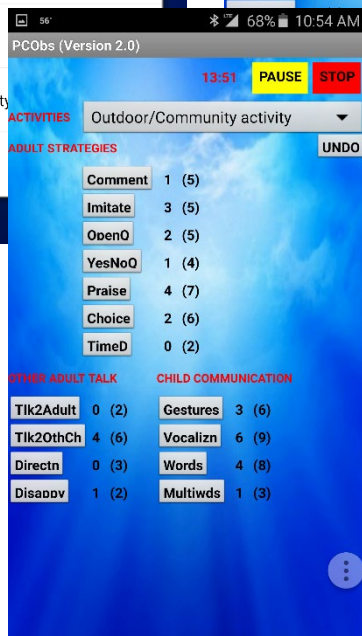
Each time that a strategy or communication is observed, click on its corresponding button, and its frequency of occurrence DURING the current activity will be updated, right next to its corresponding button.



There is also an overall frequency of occurrences for all the strategies and communications across all activities. The numbers are displayed in parenthesis, next to the frequency in the current activity.

If there is a change in activity, pull down the **ACTIVITY** menu to select the new activity, and all frequencies for the currently activity will be rest to **0**, as shown.

As a strategy or communication is observed in this current **ACTIVITY**, click on its corresponding button, and its frequency of occurrence will be updated.



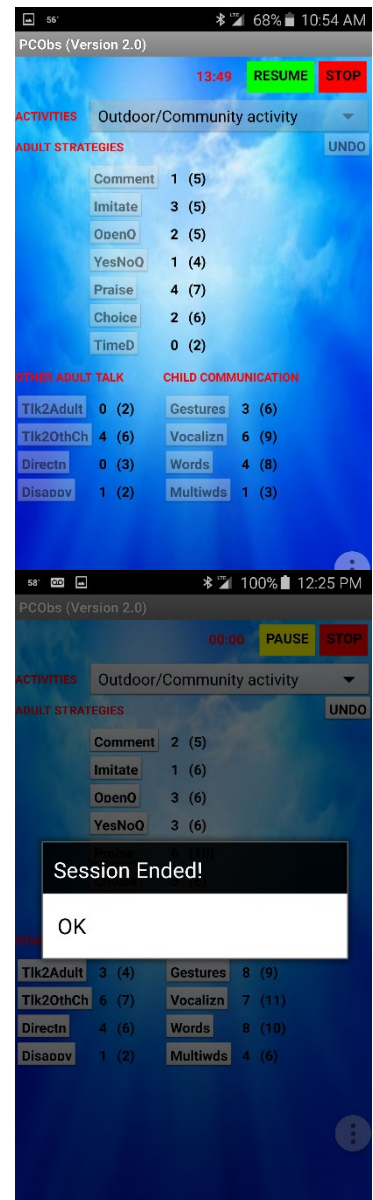
You may use the yellow **PAUSE** button to pause an observation – during this time, the timer stops, and the yellow **PAUSE** button changes to a green **RESUME** button.

All **ACTIVITY**, **ADULT STRATEGIES**, **OTHER ADULT TALK**, and **CHILD COMMUNICATION** buttons will be inactive during the **PAUSE** duration.

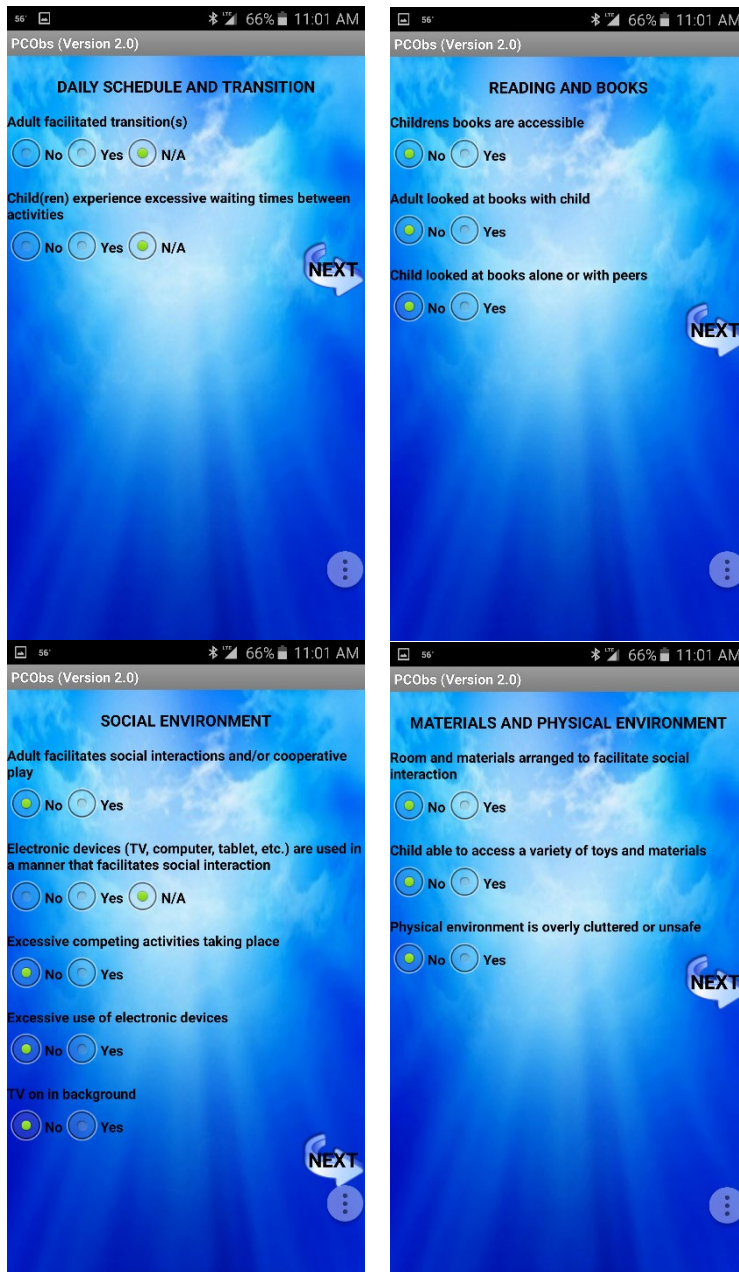
When you are ready to resume the observation, click on the green **RESUME** button, and the timer continues from when it was stopped by the **PAUSE** button, and all the buttons will become active again.

The observation session will end automatically, when the timer counts down to **0**, from whatever session length was chosen before the start of the observation. Click the **OK** button to proceed to the **ENVIRONMENTAL ARRANGEMENT STRATEGIES**.

You may also stop the observation for any reason, before the session ends automatically, by using the red **STOP** button. You will then be taken to the **ENVIRONMENTAL ARRANGEMENT STRATEGIES**.

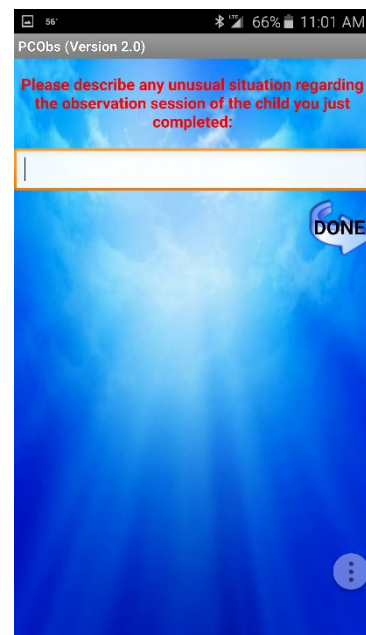


Data Collection – Environmental Arrangement Strategies



There are 4 groups of **ENVIRONMENTAL ARRANGEMENT STRATEGIES** - each group will be presented on its corresponding screen for you to select your responses.

Click the **NEXT** button after selecting your responses to each of the question presented on each screen.

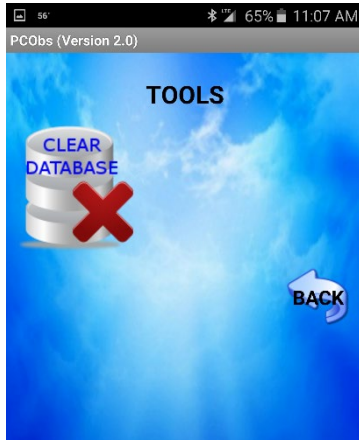


When you click the **NEXT** button after all the responses have been selected, you have the option to enter some notes.

Click the **DONE** button to complete entering notes, and the application will terminate.

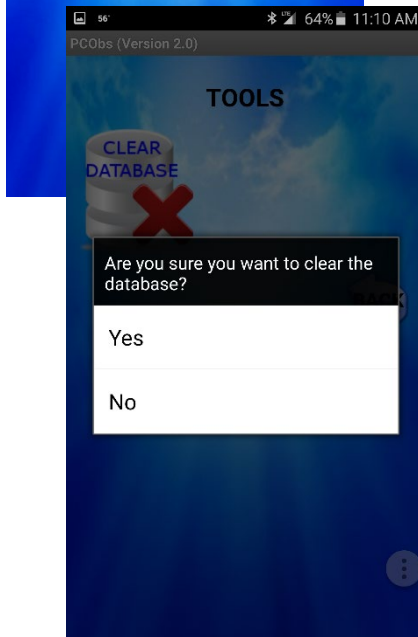
Tools

The **TOOLS** page is used to clear the database only after the Database Manager has confirmed observations have been successfully uploaded to the database. After successful upload, the device database must be cleared so duplicate data is not uploaded into the database. Click the **TOOLS** icon from the main screen to access the **TOOLS** feature.



In the current version (**Version 2.0**), only one feature is available, i.e. the tool to clear the database from the device. Use this tool to reset the database to store fresh data following either of these situations:

1. Data have been uploaded to a master database on a Windows-based PC (*discussed under **Data Management using MS Access** on Page 7*).
2. Completion of a practice session and the data is to be discarded.



To do so, click the **CLEAR DATABASE** icon, and a confirmation prompt will pop up: Select **YES** to clear the database, or select **NO** to keep the database.

Click the **BACK** button to return to the main menu to begin **DATA COLLECTION**, or to **EXIT** the application.

Observer Certification & Reliability

All PCObs observers are required to go through a process of certification before using the app to collect data. To be certified, the observer must score 85% on three the training videos. The provided Microsoft Excel PCObs Certification Calculator will allow the observer to self-score their observations and receive feedback. The calculator will identify areas that need to be reviewed if the observer is not yet certification, or let the observer know certification has been achieved. In addition to initial certification, it is recommended observers recode a training video annually to check for maintained reliability. Collect interobserver reliability within your program, as well.

PCObs Certification Process

- 1) Select a video to code from:
https://www.youtube.com/playlist?list=PL9hriRs2mTfegwEKoiw6lV9JlI8kp_N3Z
It is recommend to use Video #1 to become accustomed to the app, and use the remaining videos to establish reliability. Video #1 is a series of clips of different parents and children, but when coding, treat them all as the same child and caregiver.
- 2) Prepare your device (Android phone or tablet) for observation. Open the PCObs App and enter the required information. For Child ID, use 999 + Video Number. For example, if watching Video #1, enter 9991 as the Child ID. Video #2 Child ID will be 9992, etc. Enter 9s for the remaining required fields. Choose 30 minutes for the session length.
- 3) Press **Start Timer** in the PCObs App before pressing play on the video.
- 4) Code the video. In videos 3, 4, and 5, treat the videographer like a second adult and code communications to and from them, according to the instructions in the Promoting Communication Observation System manual. This will allow practice coding with multiple caregivers/teachers.
- 5) Press **Pause** in the PCObs app as soon as the video clip ends. If stop is pressed or the timer is allowed to run out, the observer will be unable to record scores.
- 6) Record responses on the Observation Table for Certification (Appendix C).
- 7) When ready to check scores, enter the scores into the Microsoft Excel PCObs Certification Calculator under the “Enter Totals Here” sheet.
- 8) After entering scores, click on the “Reliability Results” sheet within the Microsoft Excel PCObs Certification Calculator to check progress.
- 9) An observer is considered “certified” when a score of 85% on three of the videos is achieved. At that point, it is recommended to live code with another “video-reliable” observer at your site to make sure you are reliable with each other coding live. If not reliable, review definitions of highlighted areas of concerns within your “Reliability Results” sheet and recode videos.

Database Manager Information

About the Database Manager

It is recommended to pick 1 or 2 members of your team who are comfortable using Microsoft Access and Excel to be responsible for database management. The Database Manager will upload observations into the Access database, check data for errors, correct errors, and update the Microsoft Excel file for generating reports.

Two things must happen before you begin using the Microsoft Access database and Excel files:

- 1) Your network administrator will need to set up the files. Please inquire with your network administrator regarding the location of the files and where the pcobs2.db file should be uploaded to. There is a space for you to record this information on the Getting Started with the PC Observation System Database sheet on page 24.
- 2) Complete the online database training video. (You may do this while you are waiting for your network administrator to set up the PCObs files.)

An overview of the data upload process is available on page 25. It may be helpful to print this page for easy reference when uploading.

Instructions for using the PC Observation System Access database (PCObs.accdb) are viewable from the database switchboard. See page 36 for a screenshot of the Access Database switchboard.

BEFORE YOU BEGIN

You will need the following in order to follow along with the video tutorial:

- Printed copy of Sample Log for PC Observation Database Tutorial (Appendix D)
- YouTube Tutorial: <https://youtu.be/V3LyLWGUSGA>

You will need the following in order to upload observations into your database:

- Computer with Microsoft Access
- pcobs2.db file saved onto your desktop, or a location specified by your network administrator*
- pcobs.accdb (Access Database) saved onto your computer with any needed drivers installed*
- Current PC Observation System Log (Observer completed when taking observations and should have turned in to you with the device the observations were collected on.)

*If you need assistance moving the pcobs2.db file from your device (tablet/smart phone/etc.) to your computer, or for help with drivers, please contact your local organization's tech support team.

Getting Started with the PC Observation Database

What is the PC Observation Database?

The PC Observation Database is an Access database used to gather PC Observation System observations from mobile devices onto a computer. Observations are comprised of two elements: Adult Child Data and Environment Data. Adult Child Data includes adult and child communications during the observation as well as information to identify the observation (IDs, dates, etc.). Environment Data includes information to identify the observation as well as responses to the questions the observer answers after the observation is completed.

How do I navigate the PC Observation Database?

The following is a brief overview, intended to be accompanied by the video tutorial.

When you open the PC Observation Database (pcobs.accdb), you will automatically be on the "Main Form" screen. Please read through all of the steps (1-10) on the Main Form before clicking through the steps. You can move through the steps by doing the following:

1. Read the step instructions and then click on that step's button (the green button) on the Main Form and a new screen will appear.
2. Read the top of the new screen to view directions for that screen.
3. When you are finished reviewing and/or making corrections, you can use the "Click to Close" button at the top left corner of the screen to close that screen and return to the Main Form. If you have multiple screens open, you may need to click on other "Click to Close" buttons to get back to the Main Form.

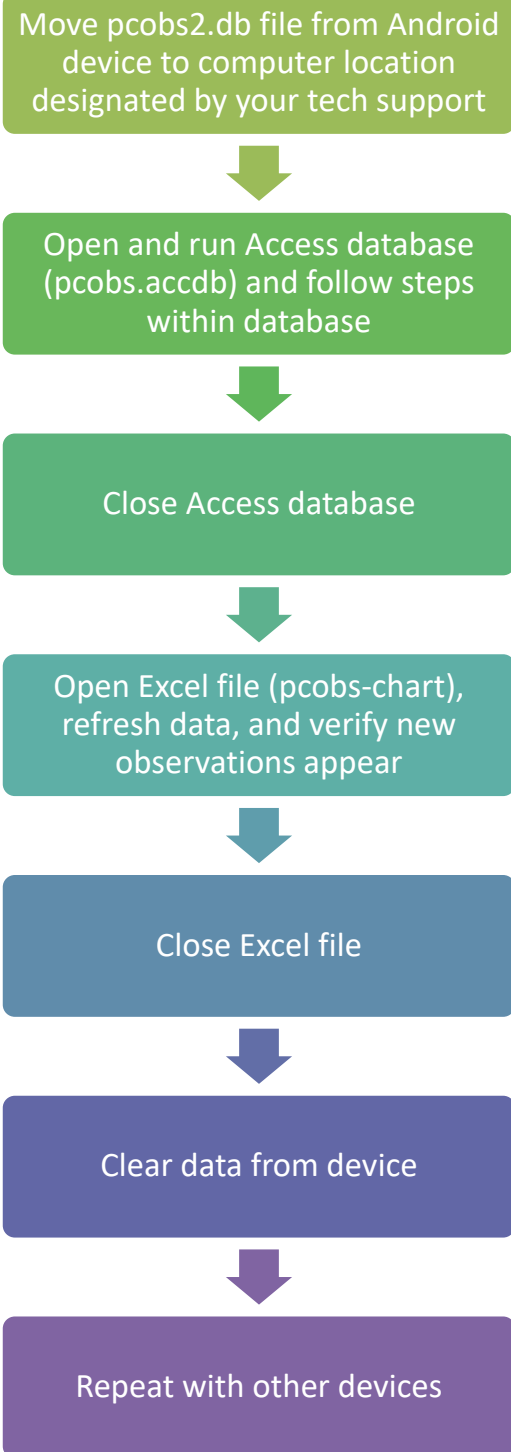
Always move through the steps in order, from 1-10. Please refer to the video tutorial for more information about how to move through these 10 steps.

*Note the red button at the bottom of your Main Form. This is not part of the 10-step process. If you accidentally delete a record you need or if the process gets interrupted and you need to start over, pressing the red button at the bottom of the Main Form will reset everything. If you click on this button, you will need to repeat steps (2-9) of the process again.

My PCObs2.db Drop Location:

My PCObs Database Folder Location:

PC Observation Database Process



PCObs Access Database Screenshot

The University of Kansas - PCObs Database (c) 2016, version 1.3

FILE **HOME**

Paste Cut Copy Remove Sort Selection Toggle Filter Advanced Refresh Save Delete More Find Spelling Replace Go To Select

Clipboard Sort & Filter Records Find Text Form

Step 1. Click the "Import Data" button to import your latest data download from your desktop.

Step 2. Click the "View Observations Less Than 10 Minutes" button to view a report of your observations that didn't meet the time criteria.

Step 3. Observations that are less than 10 minutes will need deleted. Click the "Delete Observations Less than 10 Minutes" button to delete those observations from your dataset.

Step 4. Click the "Check for Duplicate Data" button to view duplicated Environment and Adult-Child Data. If no observations show, then you do not have duplicate data. Duplicate data, in this case, are defined as one child having multiple primary observations on the same day.

Step 5. Any observations that were taken on paper need to be added by clicking the "Add New Observations" button.

Step 6. Click the "Check for Missing Data" button to view Adult-Child Data that does not have matching Environment Data.

Step 7. Click the "Check Adult-Child Data" button to verify all observations listed on your PCObs log are included in this list. If an observation is missing, you will need to collect a new observation for the child. Make sure you also scan your observations for any discrepancies.

Step 8. Use the "Check Environment Data" to scan your observations for any discrepancies.

Step 9. Click the "Edit Environment and AdultChild Data" button and use your PCObs log to check and edit your Environment and AdultChild data.

Step 10. To save your data, click the "Save and Complete Process" button to rename your tables and complete the import process.

Import Data

View Observations Less than 10 Minutes

Delete Observations Less than 10 Minutes

Check for Duplicate Data

Add New Observations

Check for Missing Data

Check AdultChild Data

Check Environment Data

Edit Environment and AdultChild Data

Save and Complete Process

Graph and Report Creation

What is the PC Observation Data Analysis component?

Data collected using the **PCObs** application is transferred from the observation device (Android-based tablet/smartphone/etc.) to the MS-Access database (**pcobs.accdb**) on a Windows-based computer. Anytime that you want to generate a progress chart and report on any of the children you observed, or on a pool of children, you would open the PC Observation Data Analysis component.

BEFORE YOU BEGIN

You will need the following in order to get started on the PC Observation Data Analysis component:

- Computer with Microsoft Access and Microsoft Excel
- pcobs.accdb (MS-Access database) with your PC Observation data saved onto your computer
- pcobs-chart.xlsm (MS-Excel workbooks) saved onto your computer
- pobs-ratebywave2-chart.xlsm (MS-Excel workbooks) saved onto your computer

Ideally, you should have all 3 files, **pcobs.accdb**, **pcobs-chart.xlsm**, and **pobs-ratebywave2-chart.xlsm**, in the same location on your system, whether on the hard disk of your computer, or on a file server location.

*If you need assistance regarding transferring data from your observation device (tablet/smart phone/etc.) to your PC Observation Database on your computer, please refer to the document ***Getting Started with the PC Observation Database***

How do I utilize the PC Observation Data Analysis component?

The PC Observation Data Analysis component allows team members such as coaches, observers, and/or database managers to create graphs and reports on data collection. The graphs and reports are created using Microsoft Excel files. There are two different Microsoft Excel files provided. One, *pcobs-chart.xlsm*, allows the user to create graphs and reports for an individual child. The data in the graph and report is reported by date. If you want to acquire aggregated data for multiple children, or look at data sorted grouped by the Program ID, use the *pcobs-ratebywave2-chart.xlsm* file.

Child by Date Data: Using *pcobs-chart.xlsm*

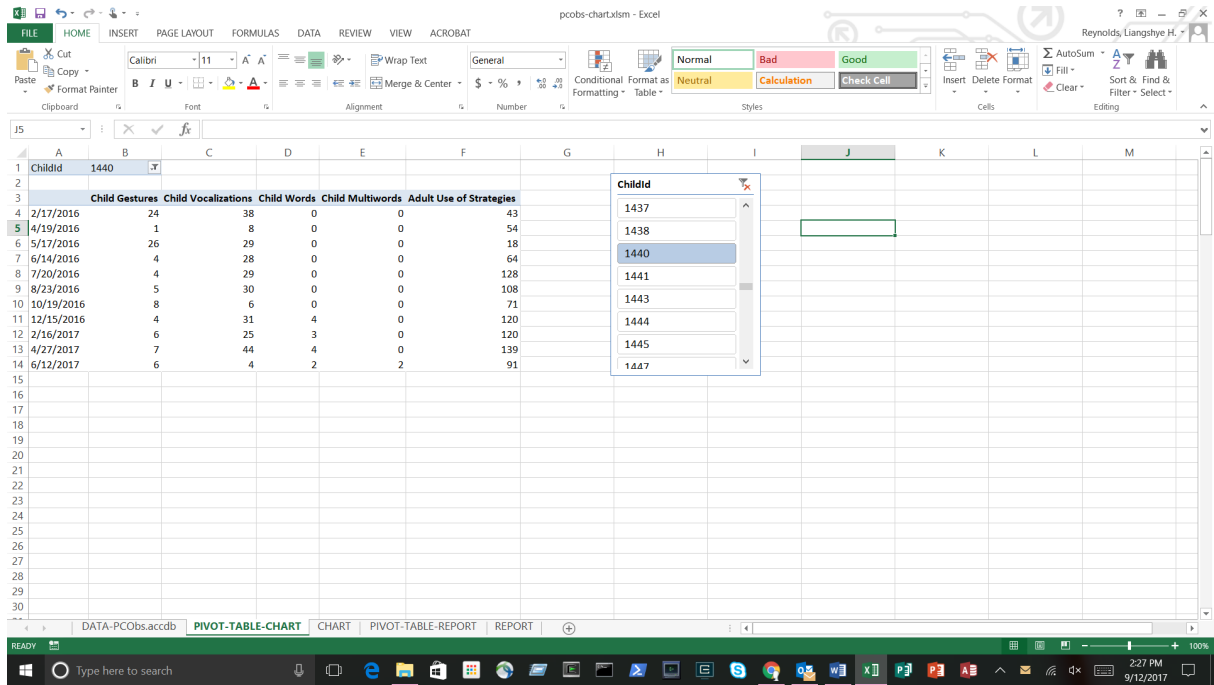
This MS-Excel workbook allows you to select one or more children by ChildId, and it will generate a progress graph/report of the selected child/children by Observation Date.

The following are the steps to go through to generate the chart and report in *pcobs-chart.xlsm*, assuming you have already linked it to the MS-Access database (*pcobs.accdb*), as outlined under the section, How do I set up the PC Observation Data Analysis component?

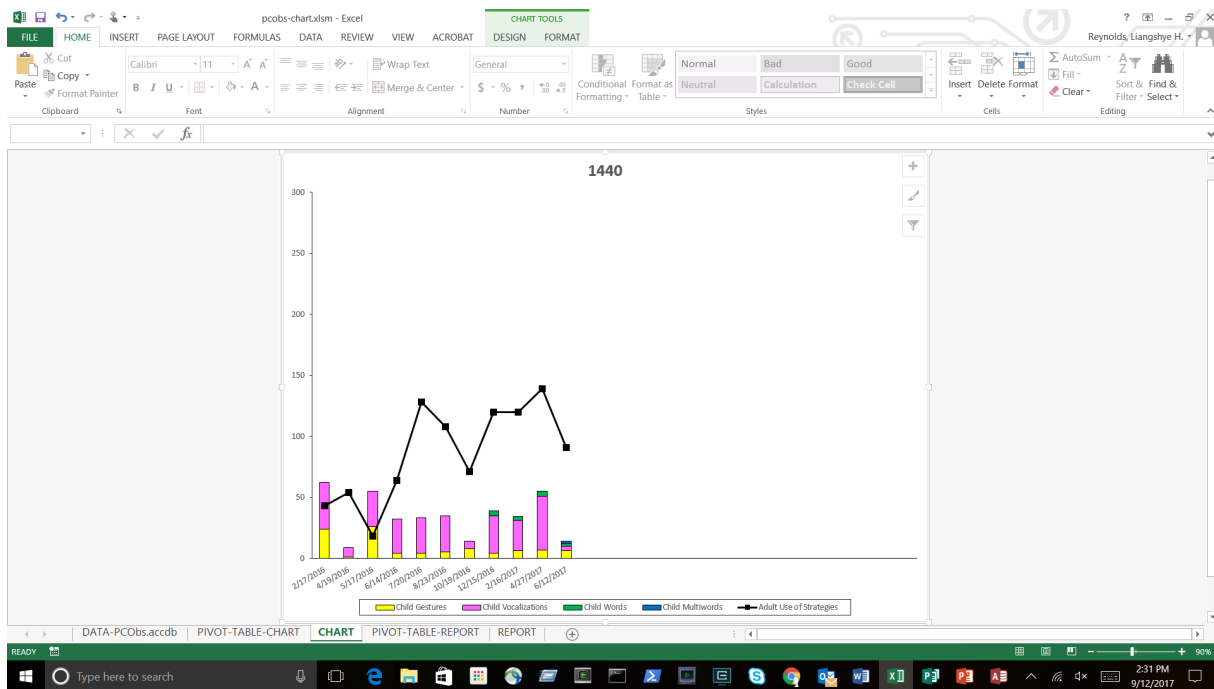
- 1) Open the **pcobs-chart.xlsm** in MS-Excel – always make a habit to refresh your data by clicking **REFRESH ALL** under the **DATA** tab.

ObsDate	StartTime	ObserverId	ChildId	CaregiverId	Caregver2Id	Caregver3Id	Reliability	Activity	Duration	CommentFrq	ImitateFrq	OpenFrq	YesNoQFrq	PraiseFrq	ChoiceFrq	TimeDfrq	Tlk2Adu
2/4/2016	11:21:26 AM	6	1305	179	205	204	0	5	900	6	0	2	3	0	0	0	
2/8/2016	9:39:05 AM	6	1376	154	198		0	1	900	6	0	0	1	1	0	0	
2/8/2016	10:05:28 AM	6	1412	195	126		0	1	900	3	0	1	0	0	0	0	
2/8/2016	10:24:37 AM	6	1355	195	126		0	1	745	16	1	1	3	0	0	0	
2/8/2016	10:24:37 AM	6	1355	195	126		0	5	155	3	0	0	0	0	0	0	
2/8/2016	10:42:46 AM	6	1403	195	126		0	5	900	8	0	1	0	1	0	0	
2/8/2016	11:01:30 AM	6	1406	195	126		0	1	900	9	1	6	2	0	0	0	
2/8/2016	11:20:16 AM	6	1401	195	126		0	5	900	10	1	0	1	0	0	0	
2/9/2016	9:47:47 AM	7	1354	195	126		0	3	900	5	5	3	2	2	0	0	
2/9/2016	10:16:28 AM	7	1407	195	126		0	1	900	29	6	2	1	8	0	0	
2/11/2016	9:30:44 AM	7	1402	180	117		0	1	900	45	1	12	17	13	0	0	
2/11/2016	9:50:05 AM	7	1383	180	117		0	2	33	0	0	0	1	0	0	0	
2/11/2016	9:50:05 AM	7	1383	180	117		0	4	108	1	0	0	1	0	0	0	
2/11/2016	9:50:05 AM	7	1383	180	117		0	4	213	1	0	0	1	2	0	0	
2/11/2016	9:50:05 AM	7	1383	180	117		0	5	546	3	0	0	0	1	1	0	
2/11/2016	10:07:15 AM	7	1343	180	117		0	1	72	0	0	0	1	0	0	0	
2/11/2016	10:07:15 AM	7	1343	180	117		0	2	601	9	0	5	5	0	0	1	
2/11/2016	10:07:15 AM	7	1343	180	117		0	4	59	1	0	2	3	3	0	0	
2/11/2016	10:07:15 AM	7	1343	180	117		0	4	168	4	0	0	5	4	0	0	
2/11/2016	10:24:20 AM	7	1393	180	117		0	1	237	3	0	2	2	2	0	0	
2/11/2016	10:24:20 AM	7	1393	180	117		0	1	439	6	0	2	4	2	0	0	
2/11/2016	10:24:20 AM	7	1393	180	117		0	4	224	29	4	0	7	5	0	0	
2/11/2016	10:41:58 AM	7	1350	180	117		0	1	544	12	3	2	14	5	2	0	
2/11/2016	10:41:58 AM	7	1350	180	117		0	3	356	6	1	0	1	0	0	0	
2/11/2016	10:59:39 AM	7	1397	180	117		0	1	582	7	0	0	1	1	0	0	
2/11/2016	10:59:39 AM	7	1397	180	117		0	3	117	5	0	0	0	0	0	0	
2/11/2016	10:59:39 AM	7	1397	180	117		0	3	201	0	0	0	0	0	0	0	
2/11/2016	11:16:53 AM	7	1395	180	117		0	3	63	1	0	0	0	0	0	0	
2/18/2016	10:00:32 AM	7	1415	174	201	124	0	1	900	23	0	2	5	0	0	0	

- 2) To select a CHILD ID, to view his/her progress chart/report, go to the **PIVOT-TABLE-CHART** worksheet – there is a list of CHILD IDs in a box on the RIGHT of the worksheet – select a child.



- 3) Go to the **CHART** worksheet to view the child’s progress chart.



4) Go to the **REPORT** worksheet to view the child's progress report.

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Date	2/17/2016	4/19/2016	5/12/2016	6/14/2016	7/20/2016	8/23/2016	10/19/2016	12/15/2016	2/16/2017	4/27/2017	6/12/2017							
2	Observer ID	7	6	7	6	6	6	7	7	7	6	7							
3	Child ID	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440							
4	Caregiver #1 ID	158	158	124	158	158	158	158	158	158	158	158							
5	Caregiver #2 ID	166	202	202	166	201	210	109	109		210	213							
6	Caregiver #3 ID	202	166	166		166	109	210											
7	ADULT STRATEGIES																		
8	Comments and labels	30	53	17	52	103	83	57	77	75	117	61							
9	Imitate and expand on utterances	1	1	1	0	3	5	1	1	4	1	1							
10	Asks open-ended questions	2	0	0	6	19	14	3	13	10	18	12							
11	Asks Yes/No questions	9	0	0	5	2	3	9	22	27	2	16							
12	Gives praise and positive attention	0	0	0	1	0	3	0	4	2	1	1							
13	Provides opportunities for choices	1	0	0	0	1	0	1	1	2	0	0							
14	Asks time-delay/fill-in-the-blank questions	0	0	0	0	0	0	0	2	0	0	0							
15	ADULT USE OF STRATEGIES	43	54	18	64	128	108	71	120	120	139	91							
16	Talk to other adults	4	2	2	3	0	2	0	2	0	0	0							
17	Talk to other child(ren)	17	16	23	48	45	39	41	22	38	26	54							
18	Gives directions or instructions	0	1	0	1	1	2	0	0	1	12	0							
19	Uses disapproval or prohibitions	0	0	0	0	0	0	1	0	1	0	0							
20	CHILD COMMUNICATION																		
21	Gestures	24	1	26	4	4	5	8	4	6	7	6							
22	Vocalizations	38	8	29	28	29	30	6	31	25	44	4							
23	Words	0	0	0	0	0	0	0	4	3	4	2							
24	Multiwords	0	0	0	0	0	0	0	0	0	0	2							

5) Go back to the **PIVOT-TABLE-CHART** worksheet to repeat steps 2 through 4 for another child, to view his/her progress chart/report – the chart/report will automatically update when you select the different CHILD ID.

Child by Wave or Program Data: Using pcobs-ratebywave2-chart.xlsm

This MS-Excel workbook allows you to:

- 1) select one or more children by ChildId, and it will generate a progress graph/report of the selected child/children by Wave Number
- 2) select one or more “programs” by ProgramId, and it will generate a progress graph/report of the selected program(s) by Wave Number

The following are the steps to go through to generate the charts and reports in **pobs-ratebywave2-chart.xlsm**, assuming you have already linked it to the MS-Access database (**pcobs.accdb**), as outlined under the section, **How do I set up the PC Observation Data Analysis component?**

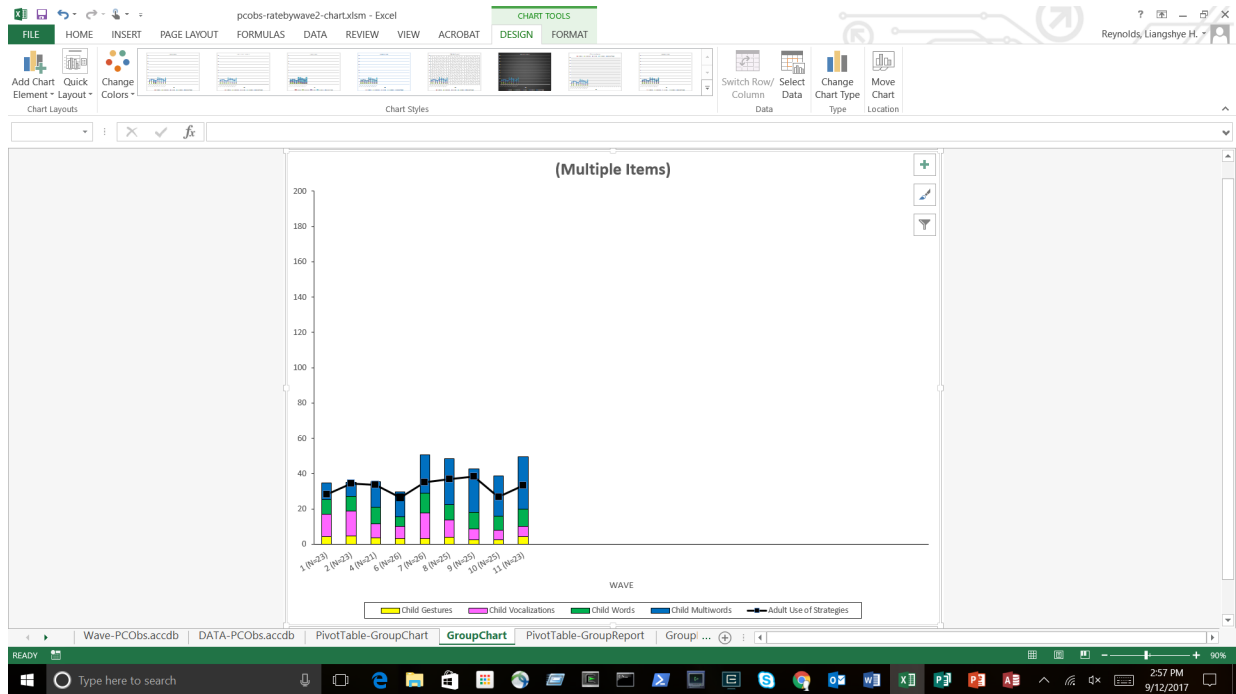
- 1) Open the **pobs-ratebywave2-chart.xlsm** in MS-Excel – always make a habit to refresh your data by clicking **REFRESH ALL** under the **DATA** tab.

ObsDate	StartTime	ObserverId	ChildId	CaregiverId	Reliability	Activity	Duration	CommentFrc	ImmitateFrc	OpenQFrc	YesNoQFrc	PraiseFrc	ChoiceFrc	TimeQFrc	Tlk2Add
5/2/2016	9:00:00 AM	5	5555	1	2	0	1	900	138	24	32	4	2	0	1
2/8/2016	11:21:26 AM	6	1305	179	205	204	0	5	900	6	0	2	3	0	0
2/8/2016	9:38:05 AM	6	1376	154	198		0	1	900	6	0	0	1	1	0
2/8/2016	10:05:28 AM	6	1412	195	126		0	1	900	3	0	1	0	0	0
2/8/2016	10:24:37 AM	6	1355	195	126		0	1	745	16	1	1	3	0	0
2/8/2016	10:24:37 AM	6	1355	195	126		0	5	155	3	0	0	0	0	0
2/8/2016	10:42:46 AM	6	1403	195	126		0	5	900	8	0	1	0	1	0
2/8/2016	11:01:30 AM	6	1406	195	126		0	1	900	9	1	6	2	0	0
2/8/2016	11:20:16 AM	6	1401	195	126		0	1	900	10	1	0	1	0	0
2/9/2016	9:47:47 AM	7	1354	195	126		0	3	900	5	3	2	2	0	0
2/9/2016	10:16:28 AM	7	1407	195	126		0	1	900	29	6	2	1	8	0
2/11/2016	9:30:44 AM	7	1402	180	117		0	1	900	45	1	12	17	13	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	2	33	0	0	0	1	0	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	4	108	1	0	0	1	0	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	4	213	1	0	0	1	2	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	5	546	3	0	0	1	1	0
2/11/2016	10:07:15 AM	7	1343	180	117		0	1	72	0	0	0	1	0	0
2/11/2016	10:07:15 AM	7	1343	180	117		0	2	601	9	0	5	5	0	1
2/11/2016	10:07:15 AM	7	1343	180	117		0	4	59	1	0	2	3	3	0
2/11/2016	10:07:15 AM	7	1343	180	117		0	4	168	4	0	0	5	4	0
2/11/2016	10:24:20 AM	7	1393	180	117		0	1	237	3	0	2	2	2	0
2/11/2016	10:24:20 AM	7	1393	180	117		0	1	439	6	0	2	4	2	0
2/11/2016	10:24:20 AM	7	1393	180	117		0	4	224	29	4	0	7	5	0
2/11/2016	10:41:58 AM	7	1350	180	117		0	1	544	12	3	2	14	5	2
2/11/2016	10:41:58 AM	7	1350	180	117		0	3	356	6	0	1	0	0	0
2/11/2016	10:59:39 AM	7	1397	180	117		0	1	582	7	0	0	1	1	0
2/11/2016	10:59:39 AM	7	1397	180	117		0	3	117	5	0	0	0	0	0
2/11/2016	10:59:39 AM	7	1397	180	117		0	3	201	0	0	0	0	0	0
2/11/2016	11:16:53 AM	7	1395	180	117		0	3	63	1	0	0	0	0	0

- 2) **For the progress graph/report of the selected child/children by Wave Number**, go to the **PIVOTTABLE-GROUPCHART** worksheet – there is a list of CHILD IDs in a box on the RIGHT of the worksheet – select a group of child children.

ChildId (Multiple Items)	Distinct Count of ChildId	Child Gestures	Child Vocalizations	Child Words	Child Multwords	Adult Use of Strategies
1	23	102	287	188	224	644 1 (N=23) 4.434783 12.47826 8.173913 9.73913 28
2	23	104	331	191	178	793 2 (N=23) 4.521739 14.2913 8.304348 7.79913 34.47826
3	21	76	167	197	300	704 4 (N=21) 3.619048 7.952381 9.380952 14.28571 33.52381
4	26	84	173	145	370	681 6 (N=26) 3.230769 6.653846 5.576923 14.23077 26.19231
5	26	84	374	291	563	907 7 (N=26) 3.230769 14.38462 11.19231 21.65385 34.88462
6	25	98	243	222	651	925 8 (N=25) 3.92 9.72 8.88 26.04 37
7	25	64	147	238	615	956 9 (N=25) 2.56 5.88 9.52 24.6 38.24
8	25	64	132	199	572	664 10 (N=25) 2.56 5.28 7.96 22.88 26.56
9	23	100	134	221	684	765 11 (N=23) 4.347826 5.826087 9.608696 29.73913 33.26087

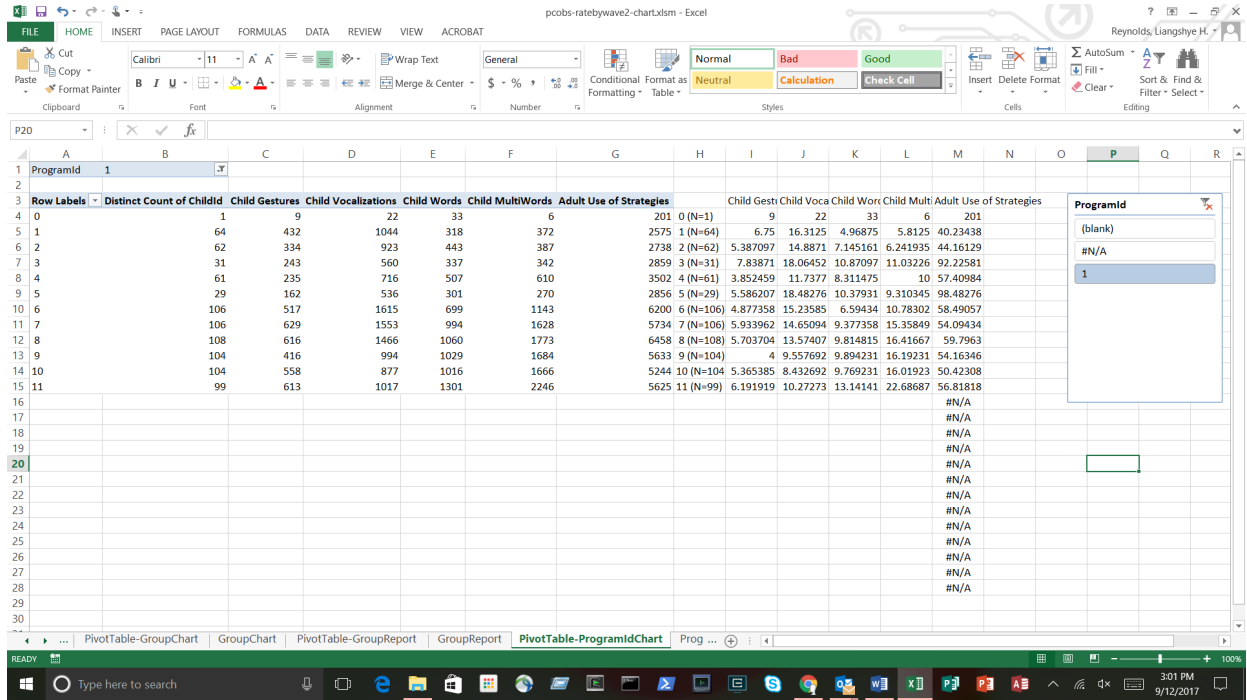
3) Go to the **GROUPCHART** worksheet to view the progress chart by Wave Number.



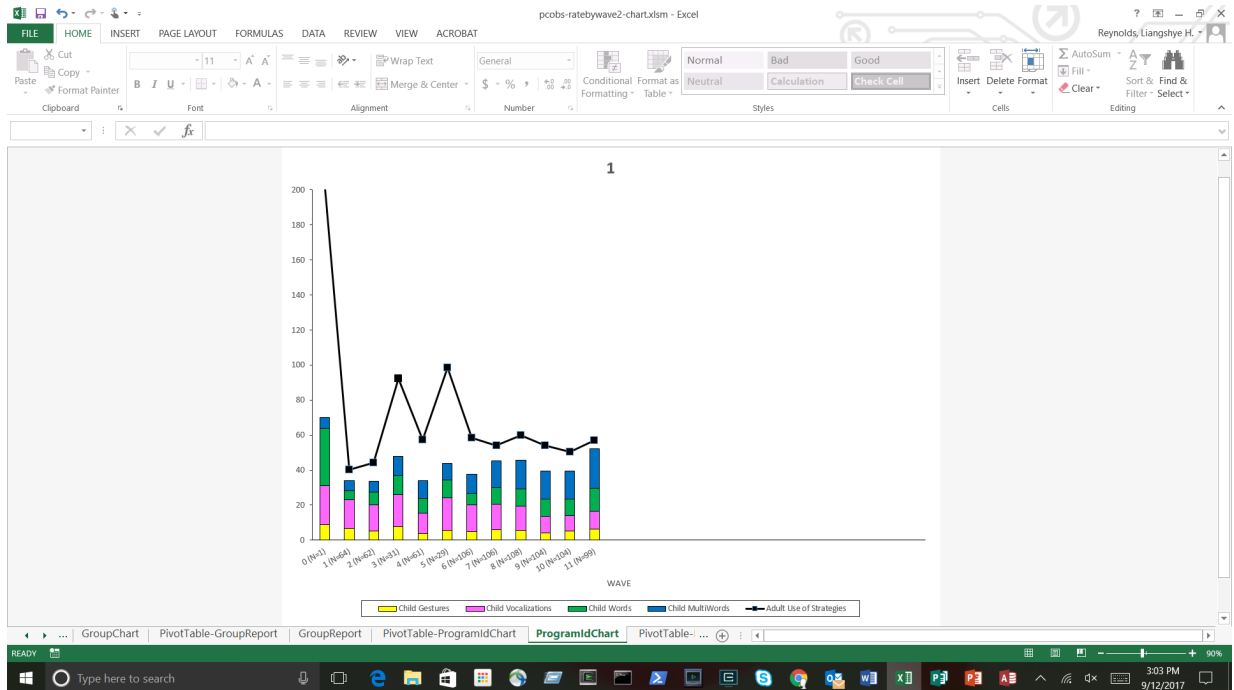
4) Go to the **GROUPREPORT** worksheet to view the progress report by Wave Number.

	1	2	4	6	7	8	9	10	11
Observer ID									
N (Number of Children)	23	23	21	26	26	25	25	25	23
Caregiver #1 ID									
Caregiver #2 ID									
Caregiver #3 ID									
ADULT STRATEGIES									
Comments and labels	319	521	480	474	558	557	630	398	577
Initiate and expand on utterances	52	61	50	18	57	34	38	25	29
Asks open-ended questions	93	76	79	90	134	201	185	149	88
Asks Yes/No questions	116	83	50	53	97	85	57	41	44
Gives praise and positive attention	58	41	37	38	55	40	28	31	22
Provides opportunities for choices	5	11	8	2	6	5	11	6	3
Asks time-delay/fill-in-the-blank questions	1	0	0	6	0	3	7	14	2
ADULT USE OF STRATEGIES	644	793	704	681	907	925	956	664	765
Talk to other adults	60	69	50	61	76	101	49	18	46
Talk to other child(ren)	555	517	447	663	539	742	702	555	644
Gives directions or instructions	210	150	86	109	82	60	73	132	23
Uses disapproval or prohibitions	17	18	11	13	16	13	16	8	11
CHILD COMMUNICATION									
Gestures	102	104	76	84	84	98	64	64	100
Vocalizations	287	331	167	173	374	243	147	132	134
Words	188	191	197	145	291	222	238	199	221
Multwords	224	178	300	370	563	651	615	572	684

- 5) For the progress graph/report of the selected program by Wave Number, go to the **PIVOTTABLE-PROGRAMIDCHART** worksheet – there is a list of PROGRAM IDs in a box on the RIGHT of the worksheet – select a program.



- 6) Go to the **PROGRAMIDCHART** worksheet to view progress chart by Wave Number.



7) Go to **PROGRAMIDREPORT** worksheet to view the progress report by Wave Number.

	Wave	0	1	2	3	4	5	6	7	8	9	10
Observer ID												
N (Number of Children)		1	64	62	31	61	29	106	106	108	104	104
Caregiver #1 ID												
Caregiver #2 ID												
Caregiver #3 ID												
ADULT STRATEGIES												
Comments and labels		138	1550	1747	1825	2385	1849	4255	3549	4087	3665	3254
Imitate and expand on utterances		24	113	208	184	167	180	217	289	258	303	234
Asks open-ended questions		32	261	324	313	567	443	972	715	1056	898	946
Asks Yes/No questions		4	420	222	319	158	184	346	815	633	452	447
Gives praise and positive attention		2	214	168	152	161	143	317	277	352	251	247
Provides opportunities for choices		0	16	59	59	49	40	61	64	40	42	67
Asks time-delay/fill-in-the-blank questions		1	1	10	7	15	17	32	25	32	22	49
ADULT USE OF STRATEGIES		201	2575	2738	2859	3502	2856	6200	5734	6458	5633	5244
Talk to other adults		0	226	205	124	197	115	352	284	339	272	210
Talk to other child(ren)		2	1742	1638	1111	1796	1266	3320	2887	3731	3567	3059
Gives directions or instructions		4	413	400	160	281	206	604	275	342	287	500
Uses disapproval or prohibitions		0	53	34	9	16	2	21	58	36	28	15
CHILD COMMUNICATION												
Gestures		9	432	334	243	235	162	517	629	616	416	558
Vocalizations		22	1044	923	560	716	536	1615	1553	1466	994	877
Words		33	318	443	337	507	301	699	994	1060	1029	1016
Multwords		6	372	387	342	610	270	1143	1628	1773	1684	1666
3/28 - Free play with babies, toys, and books												

8) Go back to the **PIVOTTABLE-GROUPCHART** or the **PIVOTTABLE-PROGRAMIDCHART** worksheet to repeat the steps for viewing:

- the progress graph/report of the selected child/children by Wave Number
- or
- the progress graph/report of the selected pivot program(s) by Wave Number

Appendix A: Promoting Communication Observation System Data Sheet

Promoting Communication Observation System Data Sheet

Date: Wave: Length:	Observer ID:	Child ID:	Caregiver ID(s):	Intervention Group:	Location: Home Center Other	Program:	Reliability: Primary Reliability None	Entered:	Checked:
A. ADULT/CHILD STRATEGIES		Adult frequency							Total
1. Comments and labels									
2. Imitate and expand on utterances									
3. Asks open-ended questions "wh" yes/no									
4. Gives praise and positive attention									
5. Provides opportunities for choices									
6. Asks time-delay / Fill in the blank questions									
7. Talk to Adult									
8. Talk to Another Child									
8. Gives directions or instructions									
9. Uses disapproval / prohibitions									
B. CHILD COMMUNICATION		Target child frequency							Total
1. Gesture									
2. Vocalization									
3. Word									
4. Multiword sentence/utterance									

Promoting Communication Observation System Data Sheet

ENVIRONMENTAL ARRANGEMENT

DAILY SCHEDULE AND TRANSITIONS

1. Adult facilitated transition(s) by announcing changes/directions
2. Child(ren) experience excessive waiting times between activities

YES	NO	N/A
YES	NO	N/A

READING AND BOOKS

3. Children's books are accessible
4. Adult looked at books with child
5. Child looked at books alone or with peers

YES	NO	N/A
YES	NO	N/A
YES	NO	N/A

SOCIAL ENVIRONMENT

6. Adult facilitates social interactions and/or cooperative play with children and/or adults
7. Excessive competing activities taking place (e.g., noise, crowding, clutter, too many guests, adult on phone or texting, TV/music too loud)
8. TV on in background (low to medium volume, even when there are not other excessive competing activities)

YES	NO	N/A
YES	NO	N/A
YES	NO	N/A

MATERIALS AND PHYSICAL ENVIRONMENT

9. Room arrangement and materials arranged to facilitate social interaction between children and/or adults (e.g., play areas or stations set up to facilitate interactions and cooperative play, multiple or duplicate toys/materials, materials/space is fairly organized)
10. Child able to access a variety of toys and materials
11. Media (TV, computer, tablet, etc) used in a manner that facilitates social interaction
12. Physical environment is overly cluttered or unsafe

YES	NO	N/A
YES	NO	N/A
YES	NO	N/A
YES	NO	N/A

ACTIVITIES OBSERVED

Check All That Apply

1. Play	
2. Reading	
3. Structured activity (circle, 1:1 time)	
4. Routine care (diaper, dress, toilet)	
5. Meal / Snack	
6. Outdoor/community activity	
7. Other (write in)	

NOTES

Appendix B: Promoting Communication Observational System Log

Promoting Communication Observation System Observation Log

Date	Time	Child ID	Caregiver IDs	Observer ID	Wave	Reliability	Changes	Uploaded
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete
						<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Complete

Appendix C: Observation Table for Certification

Observation Table for Certification

Video/Observation Name: _____ Date Coded: _____ Coder: _____

Comment	Imitate	OpenQ	YesNoQ	Praise	Choice	TimeD	Tik2Adult	Tik2OthCh	Directn	Disappv	Gesture	Vocalizn	Words	Multiwds

Video/Observation Name: _____ Date Coded: _____ Coder: _____

Comment	Imitate	OpenQ	YesNoQ	Praise	Choice	TimeD	Tik2Adult	Tik2OthCh	Directn	Disappv	Gesture	Vocalizn	Words	Multiwds

Video/Observation Name: _____ Date Coded: _____ Coder: _____

Comment	Imitate	OpenQ	YesNoQ	Praise	Choice	TimeD	Tik2Adult	Tik2OthCh	Directn	Disappv	Gesture	Vocalizn	Words	Multiwds

Video/Observation Name: _____ Date Coded: _____ Coder: _____

Comment	Imitate	OpenQ	YesNoQ	Praise	Choice	TimeD	Tik2Adult	Tik2OthCh	Directn	Disappv	Gesture	Vocalizn	Words	Multiwds

Video/Observation Name: _____ Date Coded: _____ Coder: _____

Comment	Imitate	OpenQ	YesNoQ	Praise	Choice	TimeD	Tik2Adult	Tik2OthCh	Directn	Disappv	Gesture	Vocalizn	Words	Multiwds

Appendix D: Sample Log for PC Observation Database Tutorial

Sample Log for PC Observation Database Tutorial

Date	Time	Child ID	Caregiver IDs	Observer ID	Wave	Reliability	Changes	Uploaded
2/16/16	10:33	217	214, 215	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/16/16	10:50	219	214, 215	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Delete Child Single Word	<input type="checkbox"/> Complete
2/16/16	11:07	220	214, 215	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/17/16	9:17	215	210, 211	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/17/16	9:35	213	210, 211	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/17/16	9:51	216	210, 211, 212	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/17/16	10:08	214	210, 211, 212	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/18/16	9:15	201	202, 203	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/18/16	9:40	261	231, 232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/19/16	9:07	203	201, 203	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/19/16	9:24	204	201, 203	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/19/16	10:58	226	219, 220	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/19/16	11:15	225	219, 221	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/19/16	11:31	227	219	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/22/16	9:12	228	221	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/22/16	9:32	262	231, 232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/22/16	10:00	263	231, 232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete

Date	Time	Child ID	Caregiver IDs	Observer ID	Wave	Reliability	Changes	Uploaded
2/23/16	9:16	250	225, 226, 227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/23/16	9:33	245	225, 226, 227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Too short - Deleted	<input type="checkbox"/> Complete
2/23/16	9:44	251	225, 226, 227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/23/16	10:03	245	225, 226, 227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/23/16	10:41	229	219	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Delete observation – will take again	<input type="checkbox"/> Complete
2/23/16	10:44	230	230	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/23/16	11:00	231	221	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/23/16	11:17	232	219	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/23/16	11:33	233	219	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/24/16	9:28	280	227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/24/16	9:44	244	225	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/24/16	10:05	247	225, 226	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Caregiver3 ID is listed as "1" - delete	<input type="checkbox"/> Complete
2/24/16	10:54	249	226	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/24/16	11:43	248	226, 227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/25/16	9:10	264	231, 232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Delete observation	<input type="checkbox"/> Complete
2/25/16	9:12	266	231, 232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/25/16	9:29	267	231	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete

Date	Time	Child ID	Caregiver IDs	Observer ID	Wave	Reliability	Changes	Uploaded
2/25/16	9:45	269	231	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/25/16	10:02	268	231	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/26/16	9:05	258	230	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/26/16	9:39	275	234	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
2/26/16	10:14	278	236	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Observer ID is listed as 236–change to “1”	<input type="checkbox"/> Complete
2/26/16	10:50	246	225, 226, 227	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
3/1/16	10:24	260	230	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
3/1/16	10:41	264	232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete
3/1/16	11:06	265	231, 232	1	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Complete

Appendix E: Network Administrator Information

Setting up SQLite ODBC Connection on Windows-based PC

This is a ONE-TIME configuration on the Windows-based PC, to prepare the PC to recognize the SQLite database. This step can ONLY be done by a user who has ADMINISTRATIVE privileges on the PC.

Install the **SQLite ODBC driver** on the PC – if the file “sqliteodbc.exe” is not provided, you may download it from the Internet by doing a search.

Note: if you have a 64 bit OS, you will need the 64 bit driver. If you’re using 32 bit software, the 32 bit driver should be installed as well. The 64 bit file included in the zip folder is “sqliteodbc_w64.” The 32 bit file is “sqliteodbc.”

BEFORE YOU BEGIN

You will need the following in order to get started on the PC Observation Data Analysis component:

- Computer with Microsoft Access and Microsoft Excel
- pcobs.accdb (MS-Access database) with your PC Observation data saved onto your computer
- pcobs-chart.xlsm (MS-Excel workbooks) saved onto your computer
- pobs-ratebywave2-chart.xlsm (MS-Excel workbooks) saved onto your computer

Ideally, you should have all 3 files, **pcobs.accdb**, **pcobs-chart.xlsm**, and **pobs-ratebywave2-chart.xlsm**, in the same location on your system, whether on the hard disk of your computer, or on a file server location.

*If you need assistance regarding transferring data from your observation device (tablet/smart phone/etc.) to your PC Observation Database on your computer, please refer to the document ***Getting Started with the PC Observation Database***

Setting Up PC Observation Data Analysis in MS-Excel

What is the PC Observation Data Analysis component?

Data collected using the **PCObs** application is transferred from the observation device (Android-based tablet/smartphone/etc.) to the MS-Access database (**pcobs.accdb**) on a Windows-based computer. Anytime that you want to generate a progress chart and report on any of the children you observed, or on a pool of children, you would open the PC Observation Data Analysis component.

The PC Observation Data Analysis component currently comprised of 2 MS-Excel workbooks:

- 1) **pcobs-chart.xlsm**
- 2) **pcobs-ratebywave2-chart.xlsm**

Both workbooks retrieve the data from the MS-Access database (**pcobs.accdb**) – see the document ***Getting Started with the PC Observation Database*** for detail on the database. Both workbooks generate graphs/reports, based on your selection, i.e.

3) **pcobs-chart.xlsm**

- select one or more children by ChildId, and generate a progress graph/report of the selected child/children by Observation Date

4) **pcobs-ratebywave2-chart.xlsm**

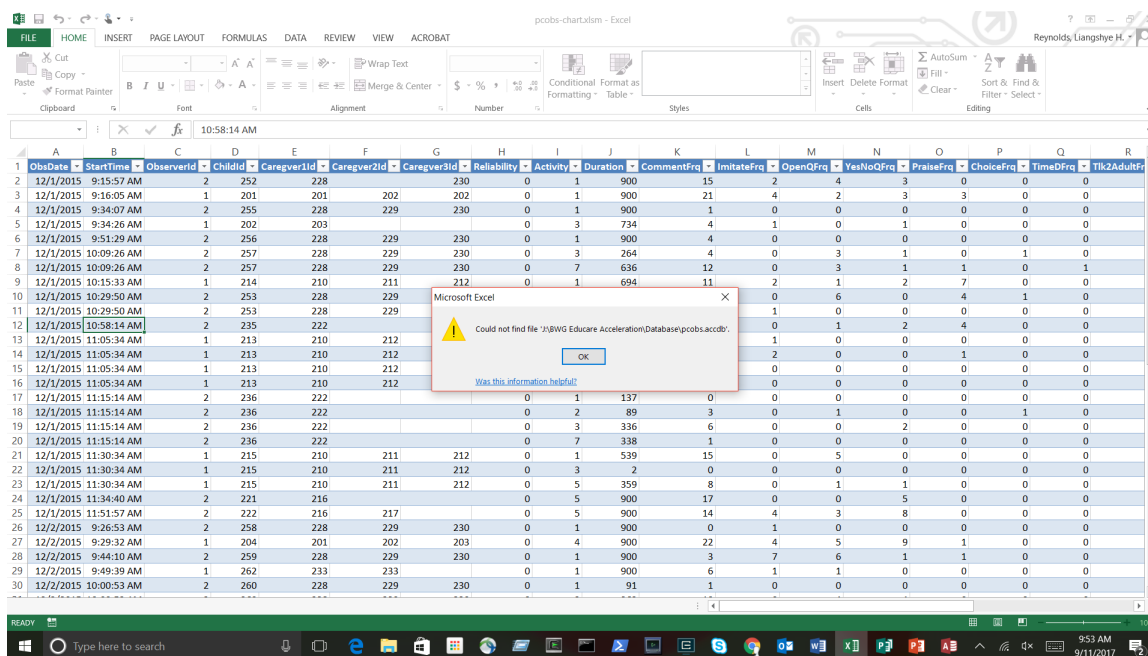
- select one or more children by ChildId, and generate a progress graph/report of the selected child/children by Wave Number
- select one or more “programs” by ProgramId, and generate a progress graph/report of the selected program(s) by Wave Number

How do I set up the PC Observation Data Analysis component?

NOTE: This component links to the MS-Access database (**pcobs.accdb**), so make sure that the database is closed before you open either one of the MS-Excel workbooks (**pcobs-chart.xlsm** or **pcobs-ratebywave2-chart.xlsm**).

THE VERY FIRST TIME you use either of these workbooks, you will need to set up the data connection, linking the workbook to the MS-Access database (**pcobs.accdb**). The following are the steps to go through to set up the data connection

- 1) **Make sure *pcobs.accdb* is closed.**
- 2) Open **either one** of the MS-Excel workbook (shown here for **pcobs –chart.xlsm**). If a yellow bar appears at the top with an **ENABLE** button to enable editing, make sure you click the **ENABLE** button. Do the same to **ENABLE** content. Save your changes. You should not receive these notifications again.



- 3) Click cell B3 to select that cell.
- 4) On the ribbon at the top of your screen, click the word “Data.”
- 5) From the Data menu, click the “Refresh All” button in the middle of the toolbar.
- 6) You will see a message stating “C:\users\amyturcotte\Documents\PCObs’ is not a valid file path.”
- 7) Click “OK.”
- 8) You should receive another message asking “Would you like to connect to ‘C:\user\your_username\your_PCObs.accdb_database_location?’”
- 9) Click “Yes” to connect to the corrected file path.
- 10) Click Save again to save the changes.
- 11) Click the “Refresh All” button on the Data menu again. You should now see your data from the database in the Excel file.
- 12) You’ll need to click “Refresh All” each time you update the database and open and run the Excel file. This will import the newest data and add it below the existing data.

13) After you click **YES**, the data in the worksheet named DATA-PCObs.accdb will be populated with the newly linked data from your MS-Access database (**pcobs.accdb**). **SAVE** the file now! Below is an example of what your data may look like.

ObsDate	StartTime	ObserverId	ChildId	CaregverId	Caregver2Id	Caregver3Id	Reliability	Activity	Duration	CommentFrg	ImitateFrg	OpenQFrg	YesNoQFrg	PraiseFrg	ChoiceFrg	TimeDAdu	Tik2Adu
2/4/2016	11:21:26 AM	6	1305	179	205	204	0	5	900	6	0	2	3	0	0	0	0
2/8/2016	9:39:05 AM	6	1376	154	198		0	1	900	6	0	0	1	1	0	0	0
2/8/2016	10:05:28 AM	6	1412	195	126		0	1	900	3	0	1	0	0	0	0	0
2/8/2016	10:24:37 AM	6	1355	195	126		0	1	745	16	1	1	3	0	0	0	0
2/8/2016	10:24:37 AM	6	1355	195	126		0	5	155	3	0	0	0	0	0	0	0
2/8/2016	10:42:46 AM	6	1403	195	126		0	5	900	8	0	1	0	1	0	0	0
2/8/2016	11:01:30 AM	6	1406	195	126		0	1	900	9	1	6	2	0	0	0	0
2/8/2016	11:20:16 AM	6	1401	195	126		0	5	900	10	1	0	1	0	0	0	0
2/9/2016	9:47:47 AM	7	1354	195	126		0	3	900	5	5	3	2	2	0	0	0
2/9/2016	10:16:28 AM	7	1407	195	126		0	1	900	29	6	2	1	8	0	0	0
2/11/2016	9:30:44 AM	7	1402	180	117		0	1	900	45	1	12	17	13	0	0	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	2	33	0	0	0	1	0	0	0	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	4	108	1	0	0	1	0	0	0	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	4	213	1	0	0	1	2	0	0	0
2/11/2016	9:50:05 AM	7	1383	180	117		0	5	546	3	0	0	1	1	0	0	0
2/11/2016	10:07:15 AM	7	1343	180	117		0	1	72	0	0	0	1	0	0	0	0
2/11/2016	10:07:15 AM	7	1343	180	117		0	2	601	9	0	5	5	0	0	0	1
2/11/2016	10:07:15 AM	7	1343	180	117		0	4	59	1	0	2	3	3	0	0	0
2/11/2016	10:07:15 AM	7	1343	180	117		0	4	168	4	0	0	5	4	0	0	0
2/11/2016	10:24:20 AM	7	1393	180	117		0	1	237	3	0	2	2	2	0	0	0
2/11/2016	10:24:20 AM	7	1393	180	117		0	1	439	6	0	2	4	2	0	0	0
2/11/2016	10:24:20 AM	7	1393	180	117		0	4	224	29	4	0	7	5	0	0	0
2/11/2016	10:41:58 AM	7	1350	180	117		0	1	544	12	3	2	14	5	2	0	0
2/11/2016	10:41:58 AM	7	1350	180	117		0	3	356	6	1	0	1	0	0	0	0
2/11/2016	10:59:39 AM	7	1397	180	117		0	1	582	7	0	0	1	1	0	0	0
2/11/2016	10:59:39 AM	7	1397	180	117		0	3	117	5	0	0	0	0	0	0	0
2/11/2016	10:59:39 AM	7	1397	180	117		0	3	201	0	0	0	0	0	0	0	0
2/11/2016	11:16:53 AM	7	1395	180	117		0	3	63	1	0	0	0	0	0	0	0
2/18/2016	10:00:32 AM	7	1415	174	201	124	0	1	900	23	0	2	5	0	0	0	0

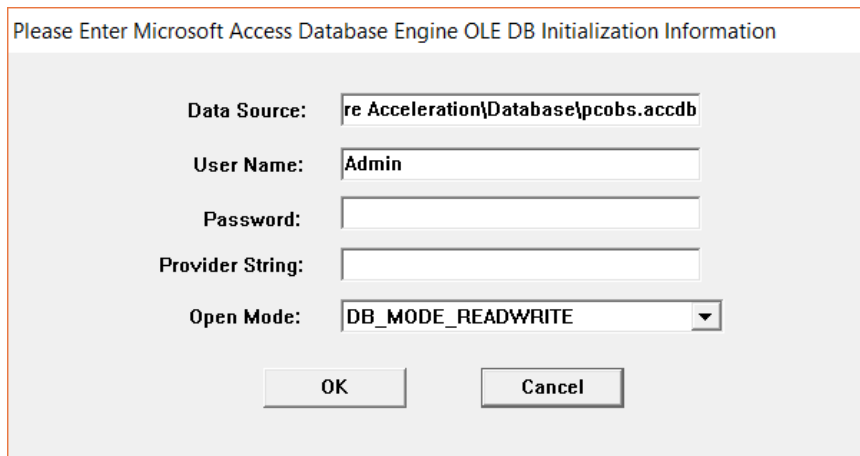
Repeat steps for the MS-Excel workbook **pcobs-ratebywave2-chart.xlsm**, to set up its data connection with the MS-Access database (**pcobs.accdb**). Skip the rest of the writeup to the section, **How do I utilize the PC Observation Data Analysis component?**, to begin using the PC Observation Data Analysis component.



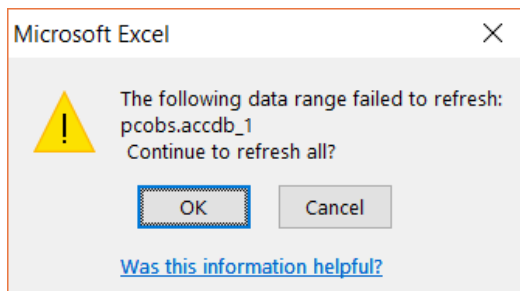
You can stop here if you have all 3 files, **pcobs.accdb**, **pcobs-chart.xlsm**, and **pcobs-ratebywave2-chart.xlsm**, in the same location on your system. Otherwise, proceed to pages 61-68.

ALTERNATIVELY, if you DO NOT have all 3 files, **pcobs.accdb**, **pcobs-chart.xlsx**, and **pobs-ratebywave2-chart.xlsx**, in the same location on your system, you may have to follow these steps to set up the data connection.

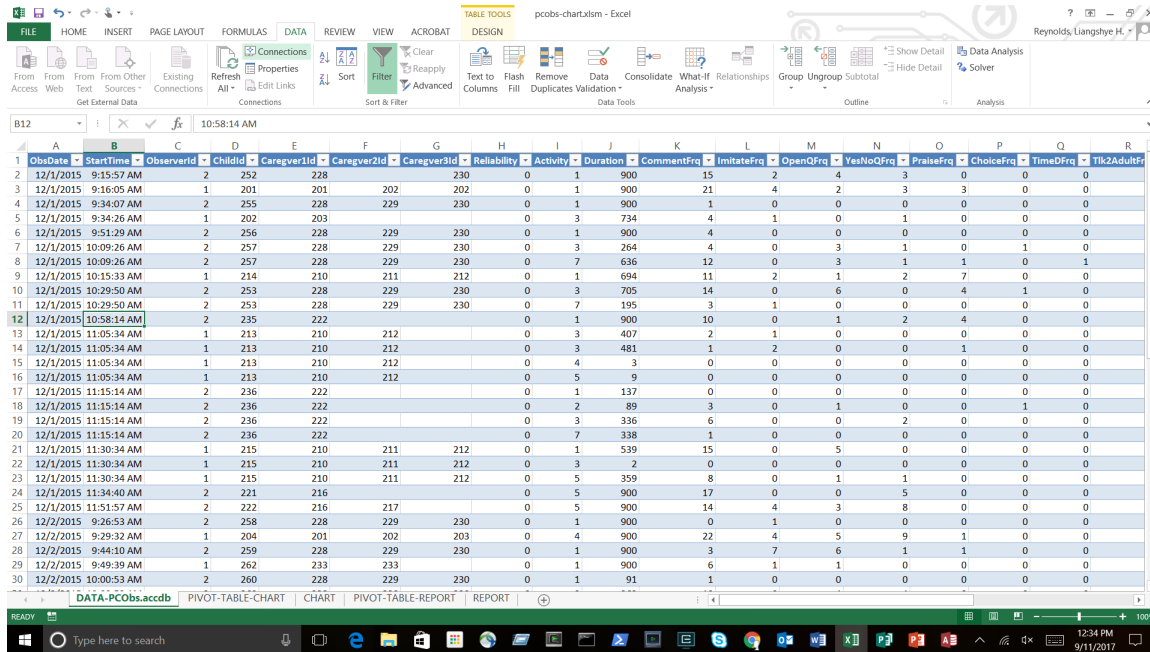
- 1) Follow steps 1 through 4 as outlined in the previous section, for the MS-Excel workbook, **pcobs-chart.xlsx**
- 2) After you click **NO** in step 4 of the previous section, and **IF** your MS-Access database (**pcobs.accdb**) is **NOT** found in the same folder as your MS-Excel workbooks, you will see the following dialog. Click **CANCEL**.



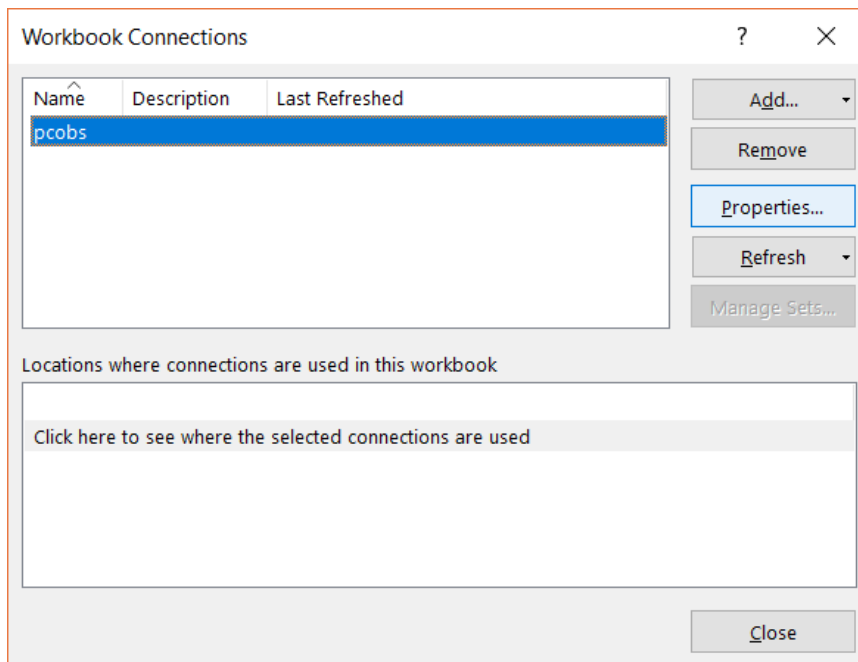
- 3) After you click **CANCEL** in step 2 above, the following dialog pops up. Click **OK**.



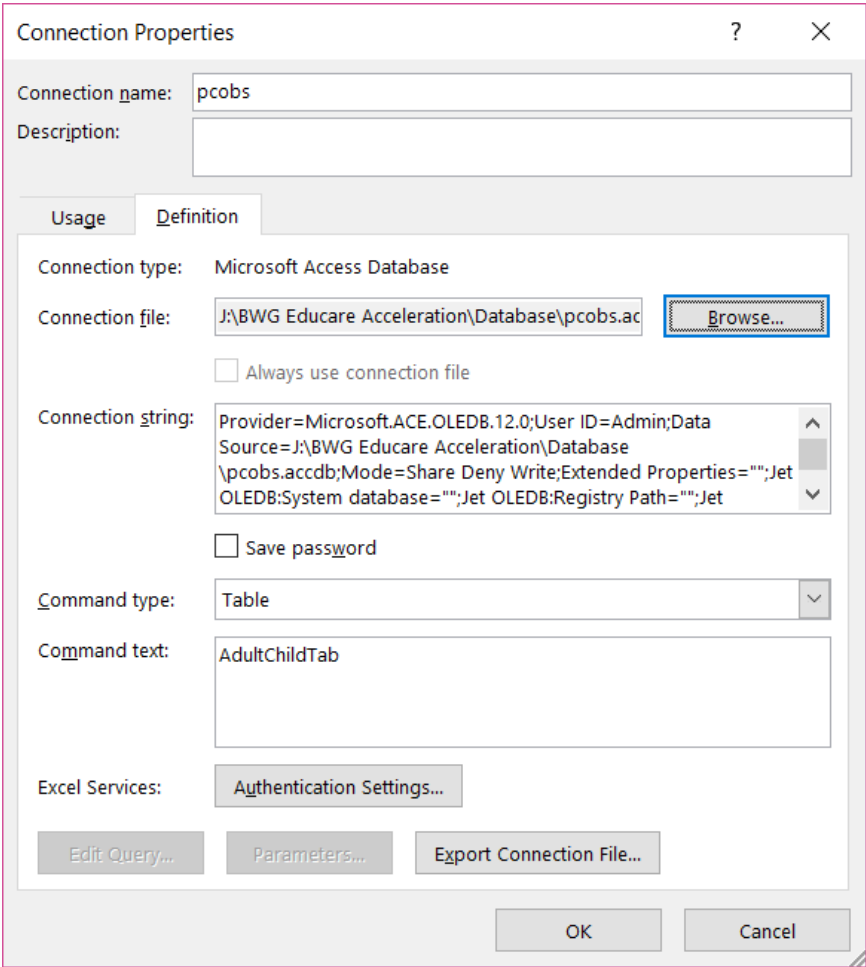
14) After you click **OK** in step 3 above, the data in the worksheet named DATA-PCObs.accdb will be left as it was, populated with whatever default data it came with. The following image is an example of what the worksheet may look like - click on the **DATA** tab, and then the **CONNECTIONS** icon.



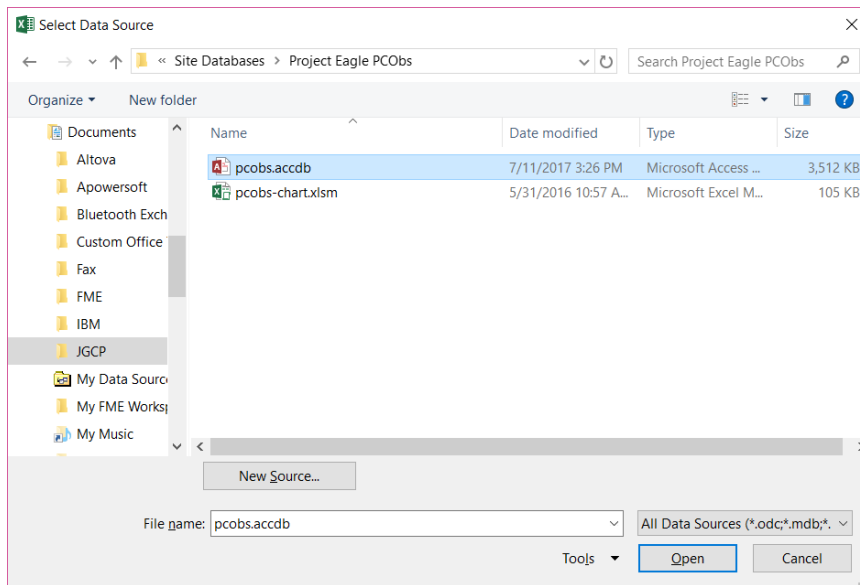
15) The **WORKBOOK CONNECTIONS** dialog will pop up. Make sure **pcobs** is highlighted, and click on the **PROPERTIES** button.



16) The **CONNECTION PROPERTIES** dialog will pop up, with **pcobs** as the Connection Name, as shown in the next image. Click on the **DEFINITION** tab to specify the connection to **your** MS-Access database (**pcobs.accdb**) – *make sure you know its location!* Click on the **BROWSE** button.



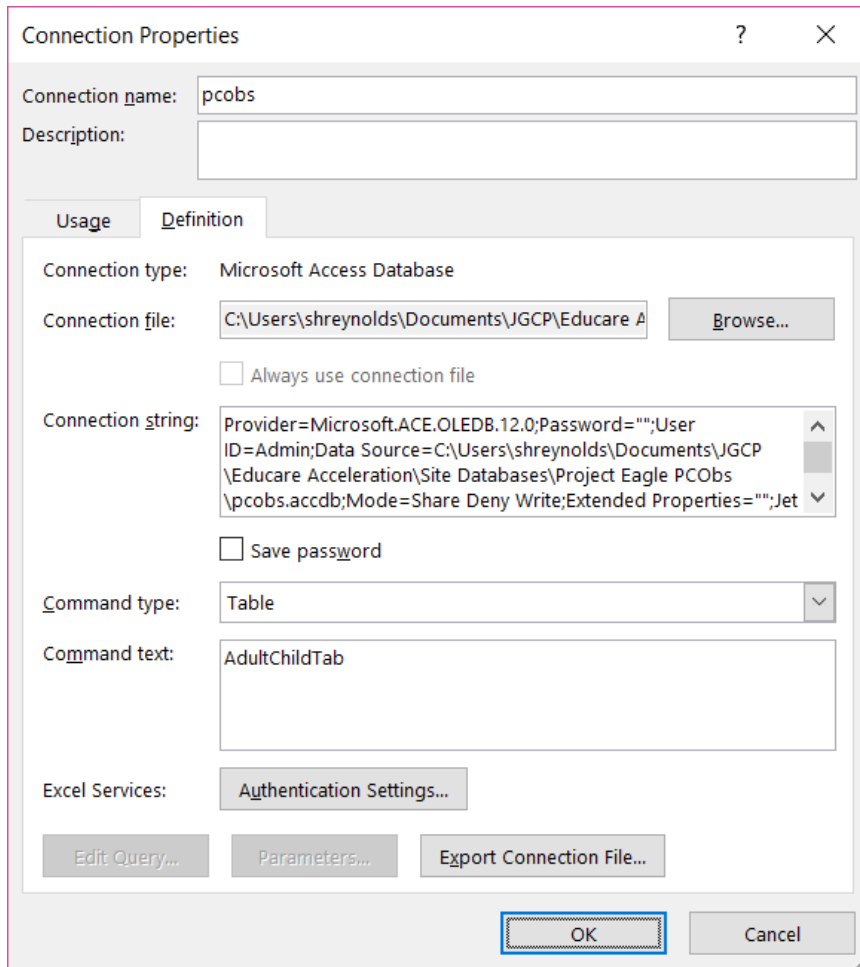
17) When the **SELECT DATA SOURCE** dialog pops up, navigate to the location where **your** MS-Access database (**pcobs.accdb**) resides. The next image shows an example of the dialog at the location of the database – select the MS-Access database (**pcobs.accdb**) and click the **OPEN** button.



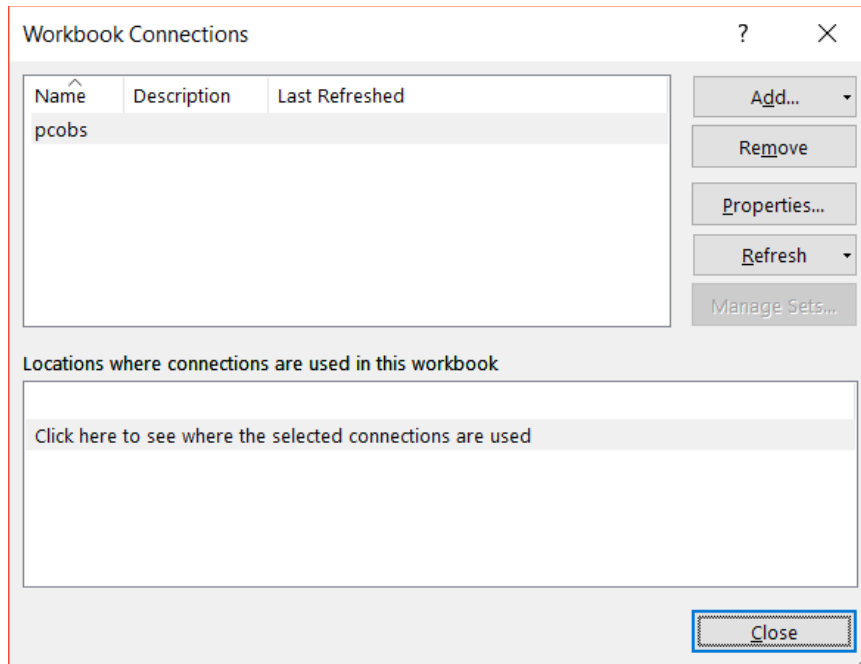
18) After you click the **OPEN** button, wait for the **SELECT TABLE** dialog to pop up. Find the **AdultChildTab** table, select it and click the **OK** button.



- 19) After you click the **OK** button, all child dialogs will close, and you will notice that the **CONNECTION FILE** and the **CONNECTION STRING** information in the **CONNECTION PROPERTIES** dialog is now changed from what you previously saw in step 10 (see the examples shown in the image in step 10 and the next image). Click **OK** to close this dialog.

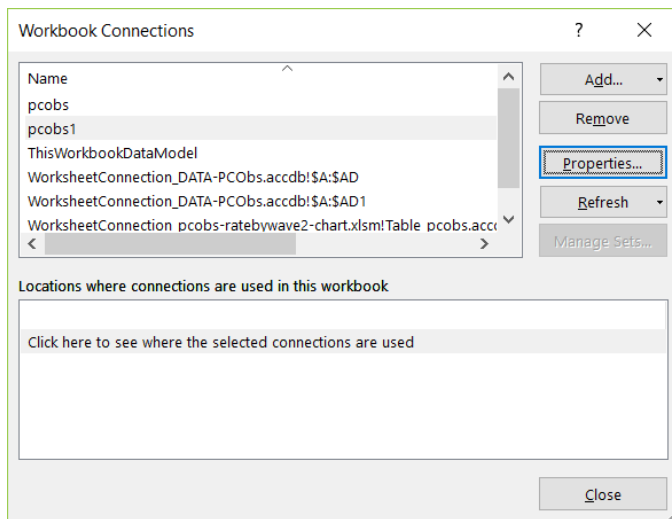


20) Your data connection with the MS-Access database (**pcobs.accdb**) is now set up for the MS-Excel workbook, **pcobs-chart.xlsm** – click the **CLOSE** button on the **WORKBOOK CONNECTIONS** dialog.

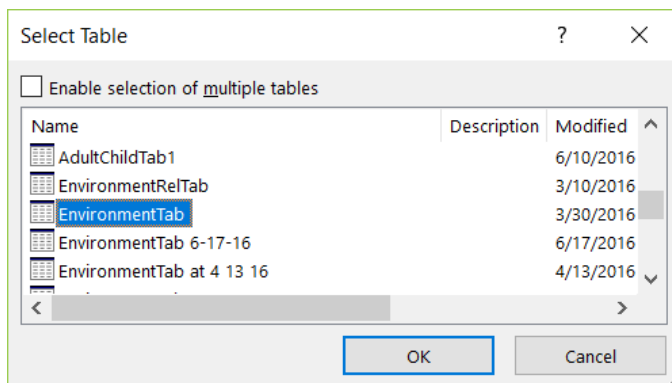


The MS-Excel workbook, **pcobs-ratebywave2-chart.xlsm**, links to 2 tables (**AdultChildTab** and **EnvironmentTab**) in the MS-Access database (**pcobs.accdb**). As such you have extra steps to perform for this workbook, if you DO NOT have all 3 files, **pcobs.accdb**, **pcobs-chart.xlsm**, and **pobs-ratebywave2-chart.xlsm**, in the same location on your system.

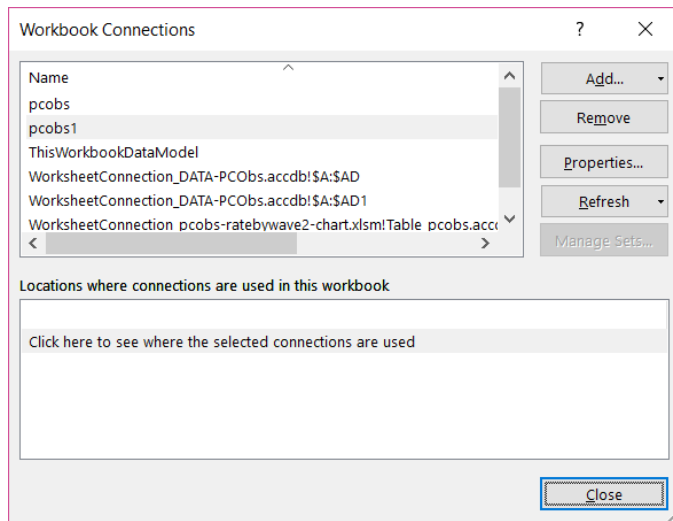
- 1) Follow steps 1 through 13 (as you did for the MS-Excel workbook, **pcobs-chart.xlsm**) to link the MS-Excel workbook, **pcobs-ratebywave2-chart.xlsm**, to the **AdultChildTab** table in the MS-Access database (**pcobs.accdb**).
- 2) When you get to step 14, DO NOT close the **WORKBOOK CONNECTIONS** dialog. Select the other connection name, **pcobs1** - to link the MS-Excel workbook, **pcobs-ratebywave2-chart.xlsm**, to the **EnvironmentTab** table in the MS-Access database (**pcobs.accdb**) – and click on the **PROPERTIES** button, as shown in the example in the next image.



- 3) Repeat steps 10 onwards, except in step 12, find the **EnvironmentTab** table (instead of the **AdultChildTab** table), select it and click the **OK** button, as shown in this example.



- 4) Continue with steps 13 and 14, and when you **CLOSE** the **WORKBOOK CONNECTIONS** dialog (as shown), your data connection with the MS-Access database (**pcobs.accdb**) is set up for the MS-Excel workbook, **pobs-ratebywave2-chart.xlsm**.



- 5) **SAVE** the file now!