STEP-BY-STEP EXERCISE

Analyzing a Transcript



Step-by-step Exercise Analyzing a Transcript $\, {f 1} \,$

Analyzing a Transcript

In this exercise you will use the SALT program to analyze the sample transcript "Jeremy.slt". You will have the opportunity to view, save, and print the standard reports found within the Analyze menu. Options will be discussed for saving reports in various formats, including PDF and CSV.

A. Start SALT with Sample Transcript



- The SALT program begins with the Getting Started window. In this exercise you will be opening one of
 the sample transcripts so click the **Open** button and you are presented with the Open dialogue box.
 Note that selecting "Open" from this Getting Started window is the same as selecting **File menu** →
 Open.
- 2. Unless you changed the default transcript folder, the *My SALT Data\Transcripts* folder located within your *Documents* folder is displayed. Open the **Samples** folder and then the **Lesson Samples** folder.

Note: if the default transcript folder has been changed, follow these steps to reset the transcript folder to the default setting:

- Click the **Cancel** button to close the *Open* dialogue box.
- Setup menu → File locations → Transcripts. The current transcript folder is displayed.
- Click the Reset button to reset the transcript folder to the default setting.
- Click OK.
- You are asked if you want to save the folder setting as the program default. If you select Yes, the
 previous folder setting is lost. If you select No, the change is only in effect until you exit the SALT
 program. Select Yes or No.
- Select File menu → Open and repeat this step.
- 3. Select the transcript file **Jeremy.slt** from the "Lesson Samples" folder and then click the **Open** button (or double click "Jeremy.slt").
- 4. The "Jeremy" transcript is displayed on your screen.

B. About the Transcript

Jeremy was referred to the speech-language pathologist by the Early Childhood program teacher because he was not making progress in his oral language skills. He had been participating in the Early Childhood program for the past year for language and communication work and to develop better data on his cognitive skills. He arrived at school from a very impoverished family situation, providing him with few of the usual experiences, e.g., being read to, books in the house, family outings, or opportunity to play with peers. The language sample was taken in a play environment to optimize his motivation to talk with the examiner.

Use the cursor keys or the scroll bar to look through the transcript. Notice from the header information at the beginning of this transcript that this a play-based conversation between Jeremy, who is 5;5 years old, and an examiner. The \$ speaker line (\$ Child, Examiner) tells you that Jeremy is the first speaker (typically the target speaker) and his utterances begin with "C", and the examiner is the second speaker and her utterances begin with "E".

C. Setup menu

There are several settings which directly affect the utterances selected for analysis. The most important of these affects the analysis set, word base, and transcript cut.

1. View or change the analysis set.

The analysis set is a subset of the total utterances defined by its characteristics. Many of the analysis reports base values on either the total utterances or on the analysis set utterances. By default, the analysis set only includes those utterances which are complete, intelligible, and verbal; eliminating utterances which are nonverbal, abandoned, interrupted, or have unintelligible segments in them. The current analysis set is displayed in the status bar at the bottom of the program window ("C&I Verbal Utts" by default).

- Click the analysis set icon or select **Setup menu** → **Analysis Set**. The default analysis set (C&I Verbal Utts) excludes the first three types of utterances: abandoned and interrupted utterances, unintelligible utterances, and nonverbal utterances. If the current analysis set is anything else, click the **Reset** button.
- Click OK.

2. View or change the word base.

The word base determines which words to include in the analyses, defined by whether or not they are transcribed as parenthetical remarks or flagged with specific bracketed codes. Most word-based language measures are calculated from words included in the current word base. Speaking rate, however, when measured in words/minute includes all words regardless of whether or not they are included in the word base.



Click OK.

3. View or change the transcript cut.

The transcript cut determines which portion of the transcript to include in the analyses. The transcript cut begins at a selected starting point. It ends according to either a specified ending point, or once a chosen amount of content has been reached. The default start point is "Beginning of transcript" and the default end point is "End of transcript", i.e., the entire transcript. This may be changed to restrict the analysis to a specific section of the transcript. You may want, for example, to analyze the first fifty utterances, or the first 250 words, or skip the first 10 utterances, or analyze everything between a specific set of codes you inserted in the transcript. The current transcript cut is displayed in the status bar at the bottom of the program window ("Entire Transcript" by default).

You can also insert @begin and @end markers in your transcript to specify the area of the transcript to include in analyses. If found in your transcript, they mark the absolute beginning and end of the transcript for analysis purposes. Any references to the "beginning of the transcript" or "end of the transcript" refer to the position of these markers. Suppose, for example, that the transcript cut is used to restrict the analysis to the first 50 utterances. The first 50 utterances would begin at the first utterance following the @begin marker.

Both the transcript cut and the beginning and ending markers are used to specify the section of the transcript included for analysis. The transcript cut affects all transcripts while the @begin and @end markers only affect transcripts containing these markers.

- Click the transcript cut icon or select **Setup menu Transcript Cut**. The default transcript cut has "Beginning of transcript" as the START POINT and "End of transcript" as END POINT. If the current transcript cut is anything else, click the **Reset** button.
- Click OK.

D. Analyze menu – Overview Reports

The Analyze menu contains a variety of reports. The first two reports provide an overall summary of the speakers' language performance. The *Standard Measures Report* presents the results for both speakers in table format while the *Performance Report* presents the results for the target speaker in text format. The results of these reports guide you in selecting subsequent, more detailed, reports.

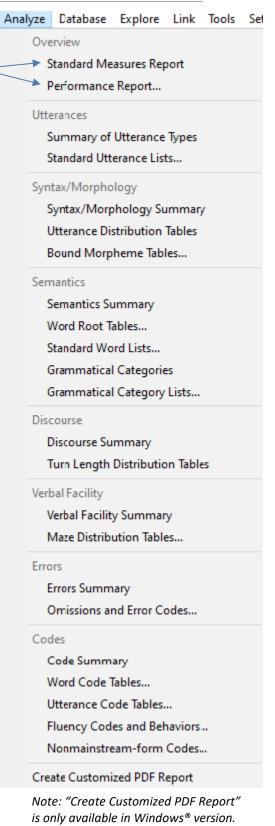
- 1. View the Standard Measures Report.
 - Select Analyze menu → Standard Measures Report.

The Standard Measures Report groups together some of the most informative language measures to give you an overall summary of the speakers' language performance in table format.

Jeremy's language sample has 59 total utterances and 47 complete and intelligible verbal utterances. Look over the rest of the report. Only 93% of his utterances were completely intelligible (*Is Jeremy difficult to understand or is it the quality of the recording*?). He has a mean utterance length of 3.45 morphemes (MLUm) and 59.6% of his utterances contained verbs. He responded to 79% of the questions asked. There are a significant number of mazes (*filled pauses, repetitions, and reformulations*) involving 23% of Jeremy's words. 43.5% of the total time of the sample was pause time. 13.6% of Jeremy's utterances were abandoned. These all need to be looked at more carefully.

Notice you cannot copy or edit text from this report. You can only print it and save it.

- If you want to print this report, click the print icon
 select File menu → Print....
- If you have questions on any of the values in this report, refer to the context-sensitive help screen
 or press the F1 function key).
- 2. Save the Standard Measures Report as a PDF File.
 - Click the save icon or select **File menu** → **Save** or **File** menu → **Save As...**.
 - You are presented with a dialogue box with several format options to choose from.
 - Windows® version only: Portable Document Format (PDF).
 The Mac version of the software uses the "Save as PDF" function built into the printer dialogue box.
 - Comma Separated Values (CSV) is text separated by commas. Files saved in this format typically open in Microsoft® Excel®. From Excel, the report can then be copied and pasted into Microsoft® Word® as a table.
 - o Tab Separated Values (TSV) is another standard, though lesser-known, format. It is text



separated by tabs.

 Tab-delimited Text (TXT), like TSV, is text separated by tabs. The only difference is the file extension. Tab-delimited text is a common format for exporting from one program and importing into another.

<u>Windows® version only</u>: Begin PDF Batch is used when you want to save multiple reports as a single PDF file. Select this command to add the current report to the end of the PDF batch. The report is not displayed on the screen. Instead, a message is displayed indicating that the report was added to the batch. When you have finished accumulating reports, select "Close PDF Batch" and you are prompted for the name and location of the PDF file used to store the results. Only one PDF batch file is available at a time. The PDF batch commands are also available in the File menu.

Windows® version:

- Keep the default format (**PDF**) and make sure the check box labeled "Display report after saving" is checked.
- Click **OK** to save the report as a pdf file.
- By default, reports are saved in the *My SALT Data\Reports* folder within your *Documents* folder. This should be the folder listed.

Note: if the default folder to save reports has been changed, follow these steps to reset the folder to the default setting:

- Click the Cancel button to close the File Save dialogue box and return to the report.
- Select Setup menu → File locations → Reports. The current report folder is displayed.
- Click the Reset button to reset report folder to the default setting.
- Click OK.
- You are asked if you want to save the folder setting as the program default. If you select Yes, the
 previous folder setting is lost. If you select No, the change is only in effect until you exit the SALT
 program. Select Yes or No.
- Go back to the beginning of this step.

Note: although this exercise directs you to save this file in *Documents\My SALT Data\Reports*, you may save it anywhere you want.

- Keep the default file name which is Jeremy_SMR.pdf (for Jeremy Standard Measures Report).
- Click the **Save** button and your data is saved as a PDF file in *Documents\My SALT Data\Reports*. If you have the Adobe Reader installed on your computer, the pdf file should open. Close the file after you have finished viewing it.

Mac version:

- Click **Cancel** to close the dialogue box without saving the report.
- 3. Save the Report as a CSV file for import into Microsoft® Excel®, and from there into Microsoft® Word®.
 - Click the save icon or select **File menu** → **Save** or select **File menu** → **Save As...**. and you are presented with the *Select Report Format* dialogue box.
 - Select the option, CSV Comma Separated Values (Excel) and click OK to save the file.
 - Keep the default file name which is **Jeremy_SMR.csv** (for Jeremy **S**tandard **M**easures **R**eport).
 - Then click the **Save** button to save the report as a CSV file. Typically, CSV files are opened automatically by Microsoft® Excel®. Otherwise you can start up Excel® and then open the CSV file.

The data is stored as rows and columns which can then be copied and pasted as a table into Microsoft® Word® (*try this on your own*).

4. View the Performance Report

Select Analyze menu → Performance Report.

You are presented with a dialogue box prompting you to enter the speaker's first name and gender. These values are pre-filled based on the content of the +Name and +Gender lines at the beginning of the transcript.

• Click **OK** to view the *Performance Report*.

This report helps you incorporate the language sample analysis findings into diagnostic reports. The data, generated from the various reports within the Analyze menu, is used to create a cohesive narrative about the speaker's expressive language performance without the database comparison. This is the only report in the Analyze menu which can be edited in the report window. You may want to add clinical impressions or observations, or modify some of phrasing to fit your preferences. The report can also be saved in RTF format which can be opened using a word-processing program such as Microsoft® Word®, or copied and pasted into your diagnostic reports.

Read through this report. The first paragraph describes the elicitation task. The next paragraph summarizes the length of the sample in terms of utterances, words, and time. The "Syntax/Morphology" paragraph lists Jeremy's MLU in words and morphemes. Based on his MLUm, some general developmental milestones are listed. In Jeremy's case, this involves the use of complex sentences with auxiliaries, and irregular past tense verb forms. This paragraph ends with the auxiliary verbs, irregular past tense verbs, coordinators, and subordinators found in his sample. And so on.

- Each analysis has help screens which contain detailed information on the contents of the analysis.
 The active window is the *Performance Report* you are currently looking at. Select context help for this summary.
 - Access the context help in any of the following ways: 1) click the help icon
 1, 2) select
 Help menu → Context Help, 3) press the F1 function key, or 4) right-click the mouse button and select "Help" from the context menu. You are presented with the help screen associated with this report.
 - After looking over the information included in the help window, close it by clicking the X in the upper right-hand corner.
- 5. Save the *Performance Report* as an RTF file.
 - Click the save icon or select File menu → Save or File menu → Save As....
 - You are presented with a dialogue box with several format options to choose from.
 - Windows® version only: Portable Document Format (PDF). This is a good format to view or print later, to email to a colleague, or to save as part of the client's records. The <u>Mac version</u> of the software uses the "Save as PDF" function built into the printer dialogue box.
 - Rich Text Format (RTF). Files saved in this format typically open in Microsoft® Word® and other word processors.
 - Text File (TXT) is a common format for exporting from one program and importing into another.
 - Windows® version only: Begin PDF Batch is used when you want to save multiple reports as a

single PDF file. Select this command to add the current report to the end of the PDF batch. The report is not displayed on the screen. Instead, a message is displayed indicating that the report was added to the batch. When you have finished accumulating reports, select "Close PDF Batch" and you are prompted for the name and location of the PDF file used to store the results. Only one PDF batch file is available at a time. The PDF batch commands are also available in the File menu.

Reports saved in any of these formats are only for use outside of SALT; they cannot be opened within SALT.

- Change the format to RTF and make sure the check box labeled "Display report after saving" is checked.
- Click OK to save the report as an RTF file.
- By default, reports are saved in the *My SALT Data**Reports* folder within your *Documents* folder. This should be the folder listed. If not, follow the directions in the previous step (above).
- Keep the default file name Jeremy_ANALPR.RTF (for Jeremy Analysis Performance Report).
- Click the Save button and your data is saved as an RTF file in Documents\My SALT Data\Reports.
 Typically, RTF files are opened automatically by Microsoft® Word®. Otherwise you can start up
 Word® and then open the RTF file.
- Close the file after you have finished viewing it.

E. Analyze menu – Subsequent Reports

Subsequent reports focus on specific areas of interest. We will continue by looking at the first report in each section.

- 1. View the Summary of Utterance Types report.
 - Select Analyze menu → Summary of Utterance Types.

The *Summary of Utterance Types* is of particular importance for conversational samples as it provides a breakdown of the number and types of utterances for both speakers.

Notice, in the first section, that Jeremy produced 59 utterances and the examiner produced 64 utterances. This indicates that the conversation was balanced; the examiner did not do all the talking. Also notice that 24 of the examiner's 64 utterances were questions. Jeremy asked 7 questions and abandoned 8 utterances.

Notice, in the second section, that 4 of Jeremy's utterances were either completely or partially unintelligible. Also notice that, of the examiner's 24 questions (1st section), Jeremy responded to 19 of them, 6 with a simple yes or no.

Use the scroll bar or the arrow keys to view the entire summary. The second half of the summary provides the same information but for the current analysis set (complete and intelligible verbal utterances).

- 2. View the Syntax/Morpheme Summary.
 - Select Analyze menu → Syntax/Morphology Summary.

The Syntax/Morphology Summary provides an overview of the words and morphemes in the transcript. Measures are given for both speakers and calculated for utterances in the current analysis set (C&I Verbal Utts) and for all utterances. Notice the low mean length of utterance (MLU) and expected age range (remember Jeremy's age is 5;5). Also notice the specific bound morphemes used.

- 3. View the Semantics Summary.
 - Select Analyze menu → Semantics Summary.

This summary looks at vocabulary diversity by comparing the number of different words used in the sample (NDW) to the number of total words (NTW) used. The moving-average values look at the number of different words used (MA-NDW) for each set of 100 words (MA-NTW), providing a measure which is independent of sample length.

If you have questions on any of these values, refer to the help screen for this summary or press the F1 function key).

- 4. Select the Analyze menu → Discourse Summary and notice that the majority of Jeremy's utterances are spontaneous and that his turn length in utterances is almost exactly the same as the examiner's turn length.
- 5. Recall that 43.5% of the elapsed time of the sample is made up of pauses and almost half of Jeremy's utterances contain mazes. Select the *Verbal Facility Summary* for more information.
 - Select Analyze menu → Verbal Facility Summary.

The *Verbal Facility Summary* provides information on rate, pauses, mazes, and abandoned utterances. Look over the information in this report. Notice that all the significant pauses (2 seconds or longer) occurred between utterances. There are 14 remarkable pauses either within Jeremy's speaking turn or immediately preceding it. The maze section of this report provides detailed information on the number and types of mazes found in the transcript. Note that 23% of Jeremy's words are in mazes and there are all types of mazes - filled pauses, repetitions, and revisions.

- 6. Select the **Analyze menu** → **Errors Summary** for a summary of the omissions and error codes found in the sample.
- 7. Select the **Analyze menu** \rightarrow **Code Summary** for a summary of all the bracketed codes found in the sample.
- 8. Close All Report Windows.

The screen is getting cluttered so you should close all the report windows, leaving the transcript window open. You could do this by clicking the **X** in the upper right-hand corner of each report window. However, there is a faster way to do this:

• Select **Window menu** → **Close All Reports**. Jeremy's transcript should still be open.

F. Analyze menu – Other Menu Options

There are other menu options available in each section of the Analyze menu. Not all options are important for all samples, but you should become familiar with the information provided. The rest of this directed exercise looks at some of these menu options.

- 1. View the Word Root Tables in the Semantics section.
 - Select **Analyze menu** → **Word Root Tables...** and you are presented with the *Word Root Tables* dialogue box.
 - There are three tables available, to be selected one at a time. Select the first table, Word Root
 Table.
 - There are two ways the word roots can be counted. With the first option, "Total Occurrences", each word root is displayed along with a count of the number of times that word root was used by each speaker. With the second option, "Mentioned First", each word root is displayed along with a "1" if that word root was used first by the selected speaker or a "0" if that word was used first by another speaker. The "Mentioned First" option is only available when the "Table" setting is "Word Root Table". Select the first option, Total Occurrences.
 - Notice that the word roots on which these tables are based are restricted to the word roots used by
 the 1st speaker in the main body of the utterances in the current analysis set (C&I Verbal Utts). If the
 current settings are anything else, click the Reset button.
 - Click OK to view the table. Counts are given for both speakers but the word list is based on Jeremy's
 (1st speaker) words. The omitted word roots (which begin with an asterisk) are displayed at the
 beginning of the list.



Suppose you wanted a list of all the child's words which were found in mazes. This would be useful if
you were looking at fluency and the mazes contained specific instances of stuttering (e.g., C He (w*
w*) was here).



- Select Total utterances from the utterance base (not limiting to C&I V utterances).
- Select Mazes from the Area choices.
- Re-select the first table, Word Root Table.
- Click **OK** and a list of the words located within mazes is displayed. The words that end with an asterisk are "part words". Did you notice that Jeremy used the filled pause word "UM" 16 times?
- Select Window menu → Close All Reports.
- 2. The format of the *Bound Morpheme Tables* is almost identical to the format of the "Word Root Tables". Try out these tables on your own. If you have questions on any of the tables, refer to the built-in help screen (F1?) or F1).

3. View the Standard Word Lists.

• Select **Analyze menu > Standard Word Lists...** and you are presented with the *Standard Word Lists* dialogue box.

- There are fifteen word lists to select from and three settings. Notice the last two lists. The "Yes/No Words" are used to determine "Yes/No responses to questions" and the "Filled Pause Words" are used to determine maze types. The other thirteen lists are standard word lists which you may find informative. Also notice that there are five blank lists. These are available if you wish to create your own standard word lists.
- Select several of the word lists and then click OK. The lists you selected are then displayed on the screen.

4. Edit the Standard Word Lists.

The contents of the standard word lists may be changed to suit your purposes. Perhaps you have unusual spellings that you want included. Although we're not going to change the contents, let's go through the steps. This can be done from several places including the *Standard Word Lists* dialogue box.

- Select Analyze menu → Standard Word Lists... again.
- Click the **Edit Standard Words Lists** button in the lower right-hand corner and you are presented with the Edit Standard Word Lists dialogue box. Notice that five of the word lists are currently <unused> and that all the word lists may be edited.
- The language setting at the bottom of this dialogue box switches between the English, Spanish, and
 French word lists. Change the setting to Spanish and French and notice that the word list changes.
 Change the setting back to English.
- Select the **Filled Pause Words** (last word list) and notice that this list contains several words plus the code [FP] (note that "[FP]" stands for "any word with the code [FP]"). These are the only words that the program recognizes as filled pause words. You may find it necessary to add other words to this list. You may press the **Help** button in this dialogue box for more details.
- Select the first <unused> word list. If you had your own list of words that you would like added to
 the set of Standard Word Lists, you would enter the title in the white Title box and enter your list of
 words, one word per line, in the white edit box.
- Click Cancel to exit this dialogue box without changing any of the word lists.
- Click Cancel again to exit the Standard Word Lists dialogue box.
- 5. Grammatical Categories and Grammatical Category Lists
 These reports use a built-in dictionary to categorize all the words in the transcript. The Grammatical
 Categories report lists each of 23 categories along with counts of the number of words in each category.
 The Grammatical Category Lists shows the words in each category. View these reports on your own.
- 6. View the *Maze Distribution Tables* from the Verbal Facility section of the menu.
 - Select Analyze menu → Maze Distribution Tables... and you are presented with the maze distribution dialogue box.

• Notice the two settings at the bottom of the dialogue box. The utterances on which these tables are based are restricted to the utterances in the current analysis set (C&I Verbal Utts.). The utterance and maze lengths are measured in morphemes rather than words. If the current settings are anything else, click the **Reset** button.

- There are three distribution tables available. You may choose one distribution table or you may choose to view all three tables at one time. **Select all of the distribution tables** and click **OK**.
- If you have questions on any of the distribution tables, refer to the built-in help screen (F1?) or F1).
- 7. View the *Omissions and Error Codes* report.
 - Select **Analyze menu \rightarrow Omissions and Error Codes...** and you are presented with the omissions and error codes dialogue box.
 - The utterances for this table are based on all the utterances of the first speaker. The entry numbers are included when utterances are listed. If the current settings are anything else, click the **Reset** button.
 - Click **OK** to view the report.
 - The omitted words and utterances are displayed, followed by the word-level and utterance-level error codes. By default, the [EU] code and any code which begins with "EO", "EP", or "EW" is considered to be an error code (Setup menu → Lists → Current Code Lists is used to change the codes SALT recognizes as error codes). If you have questions on this report, refer to the built-in help screen (or F1).
- 8. View the *Standard Utterance Lists* from the Utterances section of the menu to pull up Jeremy's abandoned utterances.
 - Select Analyze menu → Standard Utterance Lists... and you are presented with the standard utterance list dialogue box. There are 22 different utterance lists and a number of settings. You may select any number of lists, but each list is displayed independently.
 - Settings
 - Change the **Utterance Base** setting to **Analysis Set** and notice that some of the lists, including
 the nonverbal, unintelligible, abandoned, and interrupted utterances, are not available. This is
 because the utterance base, set to the analysis set, contains the complete and intelligible verbal
 utterances. It excludes the incomplete, unintelligible, and nonverbal utterances.
 - Change the **Utterance Base** back to **Total Utterances** and notice that these lists become available.
 - Notice the "Context" setting used to specify the context in which to display the utterances if you exit the dialogue box by selecting the "List" option. The first context choice allows you to specify the number of utterances that precede and/or follow each utterance of interest. If you were looking at "Imitations", for example, you would probably want to view one or two utterances preceding each imitation. Or if you were viewing "Questions", you may want to include several following utterances. The "Within entire transcript" context option would list the entire transcript with the selected utterances highlighted (be warned that each list you select would be displayed independently, which could result in a very long display). The default context is zero preceding and zero following utterances.
 - List the Abandoned Utterances
 - You may recall that Jeremy's sample contains eight abandoned utterances. To see these

utterances, select **Abandoned Utterances** from the section labeled "Utterances by ending punctuation" and click **List**. This is one of those cases where it would be valuable to look at the surrounding entries to help figure out why these utterances were abandoned.



- Change the number of preceding entries by clicking the up arrow to the right of the 0 until you reach 2.
- Change the number of following entries by clicking the up arrow to the right of the 0 until you reach 2.
- Click List to see the list of abandoned utterances again in the context of the 2 preceding and 2 following entries.
- Select Analyze menu → Standard Utterance Lists... again.
- Because there are a significant number of abandoned utterances, it might be more informative to view them in the context of the entire sample. Change the "Context" setting to Within entire transcript.
- Click List. The entire sample is displayed. Scroll down and notice that each abandoned utterance is highlighted.
- Locate the abandoned utterances in the actual transcript
 - Suppose you want to go to the location of one or more of these utterances in the transcript. You could go to the transcript and search for the ">" symbol used to mark abandoned utterances.
 But there's an easier way.
 - Select Analyze menu → Standard Utterance Lists... again.
 - Click Find (located below the List button). A dialogue box is displayed with the list of abandoned utterances. The first utterance is highlighted in the dialogue box and also in the actual transcript which is displayed behind the dialogue box. You may want to move the dialogue box to a better location on your desktop.
 - Click the second utterance in the dialogue box and notice that the corresponding utterance is highlighted in the transcript.
 - You can click back and forth between the dialogue box and the transcript. You may want to do
 this, for example, to make corrections to the transcript or to better view each utterance within
 the transcript.
 - Close the dialogue box.
- Try out some of the other utterance lists on your own.
- 9. Word Code Tables and Utterance Code Tables from the Codes section of the menu. View these tables on your own. If you have questions, refer to the built-in help.
- 10. Fluency Codes and Behaviors.

This report is only available if your transcript has been coded for fluency.

11. <u>Windows® version only</u>: *Create Customized PDF Report*Produces a PDF file containing the *Performance Overview*, supporting analyses, and a copy of the transcript.

E. Close All Windows.

• Select Window menu → Close All.

