Language Sampling Protocol

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INTRODUCTION

This document outlines the procedures and techniques of the Language Sampling Protocol used in the SALT - NZ Database (Systematic Analysis of Language Transcripts-New Zealand Version) (Gillon, Miller, Schwarz, & Westerveld, 2002). Background information on the development and piloting of the protocol is reported in Westerveld and Gillon (1999/2000; in press). The protocol incorporates optimal sampling conditions and elicitation techniques based on an extensive review of the literature. Results from the pilot study indicated that the language sampling protocol developed was a useful and efficient tool in eliciting oral language samples of adequate length and complexity for analyses in 6-year-old children.

Based on the pilot study results, the language sampling protocol was further refined and used in the creation of SALT–NZ. Systematic Analysis of Language Transcripts is a computer programme that was designed to assist in the transcription process, analysis and interpretation of children’s spontaneous language, and to encourage the more widespread use of an assessment procedure that is critical to speech language therapy practices. SALT was designed by Jon Miller and Robin Chapman (together with Ann Nockerts, computer programmer) at the Language Analysis lab at the University of Wisconsin in Madison (Miller & Chapman, 1998). The programme provides general analyses of the children’s language in areas including semantic, syntactic and discourse skills, speaking rate, fluency, and error categories. It is not intended to replace more detailed linguistic analyses such as LARSP but is intended as a first insight into linguistic measures of the child’s spontaneous language. The programme consists of a database of typically developing American children, but the New Zealand version of SALT (SALT-NZ) has the addition of a database of over 240 language samples from New Zealand children between 4 years 6 months to 7 years 6 months of age.

Specifically, SALT-NZ consists of personal narratives from approximately 240 New Zealand children, as well as 260 story retelling samples and 255 conversational language samples from children ranging in ages from 4 years 6 months to 7 years 6 months. Approximately half of the language samples are from girls and around 20% of the samples are from Maori children.
GENERAL INSTRUCTIONS

Introduction/warm-up.
For children unknown to the examiner, it will be important to include a "warm-up". The examiner starts the session by showing the child the book (similar to) ‘Where’s Wally?’ (Handford, 1987): “I brought a book to show you”. This picture book invites the children to ‘search for Wally among the crowd’. Each introduction should last between 2 – 5 minutes and is timed with a stopwatch.

Conversational context.
This context is adapted from the interview procedures used by Evans and Craig (1992). The child is asked to bring something from the classroom to discuss. Following the introduction, the child is asked, “what did you bring to show me?” and encouraged to talk about the object. The child is then asked to talk about his or her family, school, and after-school activities. To establish and maintain a productive communicative interaction, the suggestions listed by Miller (1981) should be followed. These include listening and following the child’s lead, such as maintaining the child’s pace, using open-ended prompts, and adding new information when appropriate.

The aim is to elicit 50 complete and intelligible utterances in 10 minutes of conversation. In the reference database (RDB) developed by Miller (1992), 6-year-old children produced an average of 154 utterances (SD 33) in 12 minutes of conversation. In the New Zealand database more than 90% of the children assessed produced at least 50 clear and intelligible utterances in 10 minutes of conversation. A stopwatch should be used to time the conversation.

Story retelling.
The child listens to an English translation of the story “Ko au na galo” (Anna gets lost; Swan, 1992). This book is available from Learning Media, order number 92276, Ko Au Na Galo (Phone: 0800 800 565; http://www.learningmedia.co.nz). The story is about a Pacific Islands girl who gets lost in the city, while looking for her mum and dad. It is a 10-page ‘reader’ with coloured pictures (and Tokelauan text), that is typically used in the New Zealand classroom. The story was selected for two reasons; First, children from different cultures living in suburban New Zealand are expected to be familiar with the story content and vocabulary, such as ‘policeman’, ‘beach’, and ‘dairy’. Second, the story has not been published in English, which minimises the chances of children being familiar with this book. The original translation of “Ko au na gal” was adapted to better reflect a 6-year-old’s level of linguistic complexity (see Appendix A).

The story has been audio-recorded by a female speech-language therapist specifically for the New Zealand study. The story should be played for the child on a good quality cassette recorder. The child is then told “I have brought another book to show you. We can’t read this book as it is written in another language, but I have the story on tape, in English. Let’s listen to the tape. I will ask you some questions about the story afterwards.”

Each child is asked eight questions about the story, immediately following the first story telling to evaluate story comprehension. Four questions tap factual comprehension, i.e., information that has been explicitly stated in the story (e.g., “Where did Anna go to find her parents?”). Four questions concern causal relations, tapping inferential comprehension (e.g., “Why did Anna get scared?”). The responses to the story comprehension questions should be tape recorded and scored. To reduce the influence of story comprehension on the child's retelling
performance, the child should be provided with the correct information after answering the questions. The child is asked to listen to the story twice, approximately 10 minutes apart, before being asked to retell the story without the support of pictures. Because of logistical difficulties utilising a naïve listener, it was decided to mimic an uninformed listener situation by creating a real communicative purpose. The child is therefore told: “Let’s listen to the story a second time. Afterwards we will put a new tape in the recorder and then I would like you to tell the story, so that other children can listen to it later”. The prompts used to encourage children to retell the story are included in the Language Sampling Protocol.

It is anticipated that some children will have difficulty with this particular task. Therefore, children who are unsuccessful (even after the encouraging prompts) or who generate less than five consecutive utterances are asked to retell the story a second time, while using the pictures as a referent.

Personal narratives.

Elicitation of personal narratives is adapted from a conversational technique developed by Peterson and McCabe (1983), called the Conversational Map. A pocket-size photo album is used to prompt personal narratives. (The photos used in the language sampling protocol are at the end of this document. Each photo is presented individually in separate sleeves of a photo album). The examiner introduces the activity as a natural progression from the warm-up activity, the conversation, and the story book activity: “I also brought some photos to show you”. The examiner provides a short prompting narrative with each photo, followed by a question of the form: “Did anything like that ever happen to you?” If the child responds “no”, the examiner turns the page of the photo album to the next photo. If the child says “yes” a follow-up question is asked “Can you tell me about it?” Further information on the Conversational Map Technique and prompts used to respond to the child's narrative are provided in Appendix B. A sample transcript is given in Appendix C.
WESTERVELD AND GILLON LANGUAGE SAMPLING PROTOCOL

Name D.o.b. ____/____/____
Examiner Date ____/____/____
Ethnicity Age

INTRODUCTION/WARM-UP
(2 - 5 minutes)
Show the child the book “where’s Wally?” "I brought a book to show you".

CONVERSATIONAL CONTEXT
(10 minutes, use stopwatch)
Interview with the child. Respond to the child with rewording of child’s comments or “that’s interesting, tell me some more about that.” Try to avoid leading questions. Allow the child to take the lead. Start with the first question and introduce the remaining questions when appropriate.

• “What did you bring to show me?” Object discussed ___________________________ “Can you tell me about it?”
• “Tell me about the sorts of things you do in the classroom“.
• “What do you like to do when you’re not in school?”
• “Do you have any brothers or sisters?”

STORY RETELLING 1
“I also brought a book to show you. We can’t read this book as it is written in another language, but I have the story on tape, in English. Let’s listen to the tape. I will ask you some questions about the story afterwards”.

To reduce the influence of story comprehension on individual children’s retelling performance, all children are provided with the correct information after answering the questions. It is essential that children listen to the story twice before attempting to retell the story. Instead of listening to the tape twice in a row, either the Personal narrative section could be administered or a different activity of approximately 10 minute duration could be introduced.
<table>
<thead>
<tr>
<th>Questions</th>
<th>Correct</th>
<th>Incorrect</th>
<th>No response</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>I F</td>
<td>NR</td>
<td></td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Who is the story about?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Why did Ana have to stay at home?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Why did Ana get bored?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Where did Ana go to find her parents?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Why did Ana get scared?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Who found Ana?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>What did the policeman do?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Why were Ana’s parents happy to see her?</td>
<td>1</td>
<td>0</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>TOTAL CORRECT</td>
<td>/4</td>
<td>/4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STORY RETELLING 2

“Let’s listen to the story a second time. Afterwards we will put a new tape in the recorder and then I would like you to tell the story, so that other children can listen to it later”.

Listen to the story together. Put the book aside before asking the child to tell the story.

“OK, now it’s your turn to tell the story. Let’s start at the beginning”.

If the child does not start telling the story spontaneously, one or two of the following prompts can be used:

- “What was the story about?”
- “What happened in the beginning?”
- “Just use your own words”.
- “Just tell me what you remember”.

The following prompts are used to encourage the child to continue telling the story:

- “And then?”
- "Anything else you can remember?"

If the child is unsuccessful at retelling the story and/or uses less than 5 consecutive utterances spontaneously, go to story retelling 3.

STORY RETELLING 3 (only if the child is unsuccessful at story retelling 2)

“Would you like to try that one more time? You can look at the pictures this time when you’re telling the story. Let’s start at the beginning.”
PERSONAL NARRATIVES

(Max. 10 minutes. The aim is to elicit at least 3 narratives and 50 C&I utterances)

“I also brought some photos to show you”. Talk about the photos as outlined below. If the child responds “no”, go to the next photo. If the child says “yes”, ask him/her “Can you tell me about it?”

<table>
<thead>
<tr>
<th>Prompts</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oh look who’s this? (Ronald McDonald). I went to a birthday party at McDonald's last year. Have you ever been to McDonald’s?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We went to the beach in the holidays. These children dug a big hole in the sand and waited for the sea to fill it up. Have you been to the beach? What happened last time you went to the beach.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This little girl had to go to the Doctor, cause she had a bad cough. Have you ever been to the Doctor’s?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>These friends are watching somebody arriving on a big plane. Have you ever been on a plane? Have you ever been out to the airport to watch the planes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oh look, this girl fell off the bars and hurt her knee. She had to go to the sick-bay and they put a plaster on. Have you ever broken anything? Did you ever hurt yourself in the playground?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>These children went on a school-trip. They all went on a bus to Motat (a museum with lots of old cars). Have you ever been on a school-trip?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can you see the bee on the flower? I got stung by a bee once. On my big toe! Did a bee ever sting you?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look, this is Santa. He visited my daughter’s school in a fire engine. Has Santa ever been to your school? Have you ever seen Santa anywhere?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dental nurse visited my daughter's school last year. All the children had to go for a check-up. Have you ever had a tooth-ache? Have you ever been to the dental nurse?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look, there’s my daughter/niece/nephew ……..He/ she was in a play at her school. They did the pied piper. All the children had to dress up and perform in the school hall. Have you ever been in a play? Have you ever seen a play?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We went to the movies in the holidays. Have you ever been to the Movies? Which one did you go to?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX A

Story used in the Story Retelling Task - Anna Gets Lost

One Saturday morning, Anna’s mum and dad went fishing on the beach. Anna had been sick all week, so she had to stay at home with her big brother, Tom. She asked Tom if he wanted to play with her. No thanks, he said, I want to read a Sports Magazine.

Anna got bored, so when Tom fell asleep, she decided to go looking for her mum and dad. She quietly opened the front door and went outside.

Anna walked towards the beach, but she got lost. She kept walking until it got dark. Anna got very scared and she started to cry. She stopped outside a dairy. She was still crying and didn’t know what to do.

Then Anna felt a pat on her shoulder. She looked around and saw a policeman. Hello, he said, are you Anna? Yes, said Anna, giving him a big smile.

The policeman took Anna home in the police car. Mum and Dad were very happy to see Anna. They thanked the policeman for finding Anna, and bringing her home safely. The policeman told Anna not to get lost again. Then he smiled and drove away.
APPENDIX B

Personal Narrative Elicitation Procedures

Personal narratives are elicited using the Conversational Map, a procedure developed by Peterson and McCabe (1983). This technique uses story prompts to encourage the children to tell stories. The exact content of the prompt is not important as such, as long as children are asked to talk about something that is meaningful to them. For this reason, 11 photo prompts and accompanying story prompts have been included in the language sampling protocol.

The task is introduced as follows: “I also brought some photos to show you”. Talk about the photos as outlined in the Protocol. If the child responds “no”, go to the next photo. If the child says “yes”, ask him/her “Can you tell me about it?”

To encourage the child to continue a personal narrative, the examiner can respond to the child's narrative by:
• repeating the exact words of the children when they pause.
• using relatively neutral subprompts, such as "uh-huh".
• saying "tell me more".
• asking "and then what happened?"

It is very important that the examiner does NOT evaluate the child's narrative. This gives the children the opportunity to demonstrate what they can do on their own. To illustrate compare the following two narratives:

= MCDONALDS
1. E HAVE YOU EVER HAD A BIRTHDAY PARTY AT MCDONALDS?
2. C (UM) NO.
3. C BUT MY FRIEND BRITTANY HAS.
4. E AND YOU WENT?
5. C ONCE.
6. E AND CAN YOU REMEMBER ABOUT IT?
7. C YEAH.
8. C EVEN I INVITE/ED A TEACHER.
9. C AND THAT WAS MRS FETTA.
10. C BUT NOW SHE/’S XXX.
11. C AND SHE/’S CHANGE/ED HER NAME.
12. C AND IT/’S MRS CLARKE.
13. E I SEE.
14. E AND SO DID SHE COME TO YOUR BIRTHDAY PARTY?
15. C BRITTANY/’S ONE AT MCDONALDS.
16. E AND WHAT DO YOU DO AT MCDONALDS BIRTHDAY PARTY/’S?
17. C (UM WE) FIRST WE WENT AND PLAY/ED ON THE PLAYGROUND.
18. C AND THEN WE PUT ON OUR PARTY HAT/’S.
19. C AND THEN WE ATE SOME SPECIAL THING.
20. C AND BRITTANY GOT A POKEMON CAKE.
21. C AND A MCDONALDS CAKE.
22. C AND WE HAD A TADPOLE CAKE.
23. C AND WE EVEN GOT>
24. C I’LL SHOW YOU HOW BIG IT WAS.
25. C IT WAS THIS BIG.
26. C ALL THE FROM HERE TO HERE TO THERE TO HERE.
27. E WOW.
28. E IT WAS HUGE.
29. E I DON'T SUPPOSE YOU COULD EAT IT ALL AT ONCE.
30. C WE TOOK SPOONFUL/S.

In this narrative the child seems to build up to a high point in utterances 24 to 26. Because the examiner provides an evaluation (utterances 27 to 29), the narrative is brought to an abrupt end.

=E BEE
1. E I GOT STUNG BY A BEE ONCE.
2. C I HAVE ON MY EAR.
3. E OH, TELL ME.
4. C (WHEN I WAS WA* WHEN I WAS UHM) WHEN I WAS LITTLE.
5. E UHUH.
6. C I GOT STUNG BY A BEE WHEN I WAS (WA*) GO/ING ON MY BIKE.
7. E UHUH.
8. C YES BECAUSE (UHM) I WENT TO (UHM) RIDE MY BIKE.
9. C AND I WENT TO STOP (UHM) FROM THE BIKE.
10. C THEN I SAW THE BEE.
11. C THEN IT STANG [EW:STUNG] ME ON THE EAR.
12. E IT STUNG YOU ON THE EAR.
13. E AND THEN WHAT HAPPEN/ED?
14. C I HAD TO GO HOME AND PUT SOME COLD WATER ON ME.
15. E HM.

In this narrative the examiner uses some neutral prompts to encourage the child to continue the narrative. It would have been very easy to evaluate this narrative in utterances 12 and 13 (e.g., "oh, that must have hurt!").

Appendix C provides a sample transcript, demonstrating the prompts outlined above.
APPENDIX C
Sample Personal Narrative Transcript

Please note that only successful narratives were transcribed. For information on coding conventions (such as [EW], [EO] etc. refer to the SALT manual; Miller & Chapman, 1998).

$ CHILD, EXAMINER
+ Name: CINDY
+ Gender: F
+ CA: 6:4
+ Context: PERSONAL NARRATIVES
+ E: MW

= SANTA

= DOCTOR
E HAVE YOU EVER BEEN TO THE DOCTOR/Z? C {SHAKES HEAD}. E NO? C BECAUSE A LONG TIME AGO I HAD A PAIN IN MY ARM. C AND IT DID/N'T GO AWAY FOR EVER [EU]. E UHUH. C BUT I HAD TO GO TO THE STARSHIP HOSPITAL. C AND I HAD A NEEDLE IN IT SO IT GOT AWAY [D]. E UHUH. C AND IT WENT AWAY. C BECAUSE A LONG TIME AGO (ONE OF MY FRIEND/S CAME OVER AND SWANG ME OH) JULIE CAME TO MY HOUSE. C AND SHE SWANG[EW] ME ALL BY ONE ARM. C AND (MY)ONE OF MY BONE/S (STICK) STICK/ED OUT HERE.
E OH DEAR.
C MUM HAD TO PUT HEAPS OF BANDAID/S ON IT TO (S*) MAKE IT STICK DOWN.
E RIGHT.
C AND I HAD TO GO TO THE HOSPITAL AGAIN.
E AGAIN, OH.
C BECAUSE OUR DAD/'S GOT A BROKEN RIB.
E RIGHT.
C BECAUSE[EW:AND] IT HURT/3S[EW:HURT].
C (BECAUSE HE/'S) BECAUSE ONE OF HIS FRIEND/S PUNCH/ED HIM IN THE BACK.
E HM, PUNCH/ED HIM IN THE BACK?
C {NODS}.
E HM, WOW.

=MCDONALDS.
E HAVE YOU EVER BEEN TO MCDONALDS?
C {NODS}.
E CAN YOU TELL ME ABOUT IT?
C AT OUR SCHOOL WE WENT TO THE HALL.
E UHUH.
C AND WE SAW HIM WALKING DOWN THE ROAD.
=E IS THAT A REAL PICTURE?
=E YES, (IT/'S A) IT/'S A POSTCARD.
=E BUT IT IS (YES)A PHOTO OF HIM.
E SO WHAT HAPPEN/ED?
C WE SAW HIM WALKING DOWN THE ROAD.
E UHUH.
C AND HIS CAR GOT CRASHED.
E HIS CAR GOT CRASHED?
C AND HE BLOW/ED[EO:BLEW] IT UP AS A BALLOON.
E HIS CAR?
C AND HE MADE IT INTO A BALLOONCAR.
C OPEN/ED THE BALLOONCAR DOOR.
E RIGHT, ARE YOU SURE?
E SO THEN WHAT HAPPEN/ED?
C THAT WAS IT.

=PLANE
E HAVE YOU EVER BEEN ON A PLANE?
C {NODS}.
E CAN YOU TELL^ C WE WENT ON ONE THAT GO/3S AROUND AND AROUND AND AROUND.
C AND AROUND AND AROUND.
E A HELICOPTER, OH, TELL ME ABOUT IT?
C WE WAS[EW:WERE]AT THE AIRPORT.
C AND WE SAW THIS HELICOPTER.
C AND WE HOP/ED IN.
E RIGHT.
C BUT WE SAID (I DON'T) I[EP:WE] DON'T WANT TO GO IN THERE [D].
C AND WE WENT INTO AN AEROPLANE.
E RIGHT.
C AND WE SLEEP/ED[EW:SLEPT] IN THERE.
E DID YOU?
C I FELL ASLEEP .
E UHUH.
C (IN THE PL*) THE MAN IN THE (H* OH UHM) AEROPLANE (HE) TOOK ME OUT AND PUT ME IN THAT BED WHERE WE/'RE SUPPOSED TO BE SLEEPING [D].
E OK.

=PLAY
= E HAVE YOU EVER BEEN IN A PLAY?
= C SHAKES HEAD
E HAVE YOU EVER SEEN A PLAY IN THE HALL AT YOUR SCHOOL?
C {NODS}.
E HM,CAN YOU TELL ME ABOUT IT?
C (ONE OF THEM IT) IT WAS UP IN THE STANDARDS.
C AND THESE BIG KID/S CAME DOWN AND DOWN.
C THEY DRESS/ED UP AS THREE BLIND MICE.
C AND ONE TAIL CAME OFF.
E OH.
C AND THEY HAD TO CELLOTAPE IT BACK ON.
E THEY HAD TO CELLOTAPE IT BACK ON.
C AND THIS MOUSE CAME UP RUNNING TO THE ROCK.
C (AND THIS) AND THE ROCK WAS TOO HEAVY.
C SO THIS BIG LION CAME ALONG AND SCARE/D THE MICE AWAY.
E UHUH.
C CAUSE IT IS A LION/Z ROCK.
E RIGHT.

=BEE
E CAN YOU SEE THE BEE ON THE FLOWER?
C MY BROTHER/'S ALLERGIC TO THEM.
E OH, WHAT HAPPEN/ED?
C HE GOT STUNG BY ONE.
C AND HE KEEP/ED[EO:KEPT]ON ITCHING IT.
C AND IT GOT BIGGER AND BIGGER AND BIGGER.
E UHUH.
C AND WE PUT SOME VINEGAR ON IT.
C AND IT GO/ED[EO:WENT]AWAY.
E IT WENT AWAY.
REFERENCES AND FURTHER READING


