<table>
<thead>
<tr>
<th>Title</th>
<th>Analyzing the Impact of Visual Aids on Complexity, Accuracy, and Fluency in English L2 Learners' Discourse: A Case Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Lee, Bradford</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/10461/28279">http://hdl.handle.net/10461/28279</a></td>
</tr>
</tbody>
</table>
Analyzing the Impact of Visual Aids on Complexity, Accuracy, and Fluency in English L2 Learners’ Discourse: A Case Study

Bradford LEE

*1 Organization for Fundamental Education

The design and implementation of tasks which will expand and develop students’ knowledge or ability to use a language is the fundamental function of the language instructor. Knowing how the design of the tasks will affect the learners’ output can offer us valuable insights which will in turn help to create focused activities in accordance with the instructor’s goals. This study examines the effect that introducing a visual aid, a common practice in many language classrooms, has on the language production of two higher intermediate learners of English.

Key Words: TESOL, English Education, CAF Analysis

1. Research Question

The presence of a visual aid creates a deictic center of reference for all members in a conversation. In what manner will this alter the speech patterns of language students? It can be postulated that absence of a shared frame of reference could result in more complex discourse, as there is a heavier burden to transmit information fully when there is no common knowledge between the participants. Conversely, if both participants have access to the same visuals, the listener in an exchange has a pragmatic responsibility to make an effort to comprehend the speaker’s message; thereby reducing the need for the speaker to explicitly communicate details that can be inferred by the listener. Linguistically, this would most likely lead to shorter clauses, shorter turns, and more communicative collaboration.

2. Participants

The two participants in this case study were a 26-year old male from China and a 24-year old female from Thailand. Both had come to Japan from their native countries approximately four years ago, for the purpose of studying both engineering and Japanese language at a private engineering university. The Chinese man was still in the undergraduate program, and thus took mandatory English language courses aimed at communicative fluency. He had been studying English formally in the People’s Republic of China’s public education system since he was 6-years old, and at the time of this study his personal best TOEIC score was 880. This along with his high rate of speech could classify him as an advanced level student. The female participant was in the graduate program at the university, and therefore did not take any courses in English. Her education in the Thai public education system also included English language since she was 6-years old. Her comprehension level was approximately at the advanced-intermediate level, with a top TOEIC score of 610, however her production could be characterized impressionistically as lower-intermediate, due to her slow rate of speech and heavy nonnative accent which hinders comprehension. As a result, repetitions were frequently necessary, and several times her partner could be observed feigning comprehension only to self-correct once her intended meaning was subsequently understood. As foreign students, both participants regularly took mandatory Japanese language classes.

3. Data Collection

The task used in this study was a variation of a “spot the difference” exercise. First, a picture depicting a scene in a coffee shop was given only to the male student, who will henceforth be referred to as “B”. For Task One, B was instructed to describe the contents of the picture to the female student, who will be called “G”. The only condition of the exercise was that G was not allowed to see the picture. B was not given any specific instructions as to the amount of description that was expected, nor was a time limit imposed on either task. G was instructed that she was free to ask B anything, be it confirmation of comprehension or further questions about the picture’s content. While the instructions were being given,
B had the picture in hand, and therefore had an opportunity to look it over. Otherwise, no planning time was given as such, and the activity commenced as soon as the rules were explained. Once B felt satisfied that sufficient description had been given, the study proceeded to Task Two. The picture that B had been holding was then placed on the blackboard, in clear view of both participants. B was then given a similar picture to the first one, but altered in eight places. B was then told that Task Two was for him to explain to G how the picture had changed, again without allowing G to see the new picture. G was again free to ask for more details or for confirmation. At this point, G asked if she was allowed to use body language or gesturing, to which she was given permission to do so.

4. Analysis

Due to the one-way nature of the task, B produced most of the dialog, while G’s production mostly consisted of one-word acknowledgements and simple phrases with an occasional question, such as *Have the only two sides? or *Have the bar and table? Therefore, this study only looks at B’s language for the purposes of analysis. The verbal dialogs for both tasks were first recorded and then fully transcribed. As both tasks were relatively short (B produced 523 words in Task One and 700 words for Task Two), the entire discourse was analyzed. For the purposes of analyzing the data under a CAF framework, the AS-unit was chosen as the basic unit of discourse, specifically, the AS-unit as described by Foster as ‘an independent clause, or sub-clausal unit, together with any subordinate clauses associated with either’ (Foster et al., 2000, p. 365). This unit was preferable for this data set, as B produced several sub-clausal elements such as Yeah or Sorry that are able to be dealt with under Foster’s definition, as opposed to being discarded under other units of analysis such as the T-unit, whose smallest division can only be ‘one main clause with all subordinate clauses attached to it’ (Hunt, 1965, p. 20). Once the AS-units were established and broken down into composite clauses, syntactic complexity (mean length of AS-units) and level of subordination (clauses per AS-unit) were then analyzed.

Global accuracy was determined by dividing the number of errors found by the total number of words produced for each task. An error was defined as a mistake that a native speaker would not normally make (Ellis and Barkhuizen, 2005), either syntactic or lexical. When a non-native-like utterance was encountered, an appropriate target-like sentence was reconstructed in the least invasive manner, based on the context. If the actual utterance differed with the target-like sentence at multiple points, each instance was considered as a separate error. For example, B’s sentence *So there’s a table sitting four people was first reconstructed as So there’s a table where four people are sitting. The absence of where, are, and the misplacement of sitting count as three errors in this AS-Unit. Additionally, the percentages of error-free AS-Units were taken as a second measure of global accuracy.

The definition of fluency was taken to be ‘the capacity to produce speech at a normal rate and without interruption’ (Skehan, 2009). In addition, fluency can further be broken down into ‘breakdown fluency’, ‘repair fluency’, and ‘speed fluency’ (Tavakoli and Skehan 2005). To this effect, breakdown fluency was investigated by calculating the number of mid-clause pauses, including interrupters such as Ahh or Uhmm. The total number of incidents were divided by the total number of words produced per task, then multiplied by 100, resulting in a “pauses per 100 words” value. Repair fluency was assessed by tabulating the incidence of self-corrections similarly, resulting in a “self-corrections per 100 words” score. Speed fluency was unable to be determined due to the nature of the task set. In Task Two, B first had to visually compare the two pictures and identify the differences, resulting in a time delay and several clause-final pauses. In addition, the presence of two speakers, who often overlapped and interrupted each other, made it impossible to isolate B’s total speaking time.

5. Results

A complexity analysis of both dialogs revealed a reduction in complexity between Task One (with no deictic center) versus Task Two (with a deictic center) as summarized in Table 1.1 below. Both syntactic complexity and level of subordination can be seen to have decreased in Task Two, in line with the research hypothesis. While there was more overall production, an increase from 523 words in Task One to 700 words in Task Two, there was a much larger increase in number of turns, from 36 in Task One to 71 in Task Two. So while turns almost doubled, the number of words produced rose only 33.4% between tasks. This also illustrates the drop in syntactic complexity per utterance in Task Two, as G began to participate to a greater degree.

<table>
<thead>
<tr>
<th>Complexity Analysis (Subject B)</th>
<th>Task One (non-deictic)</th>
<th>Task Two (deictic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Words Produced</td>
<td>523</td>
<td>700</td>
</tr>
<tr>
<td>Total AS-Units</td>
<td>81</td>
<td>115</td>
</tr>
</tbody>
</table>
Analyzing the Impact of Visual Aids on Complexity, Accuracy, and Fluency in English L2 Learners’ Discourse: A Case Study

| Syntactic Complexity (words / AS-Unit) | 6.46 | 6.09 |
| Total Subordinate Clauses | 12 | 5 |
| Level of Subordination (clauses / AS-Unit) | 1.15 | 1.04 |
| Total Speech Turns | 36 | 71 |

Analyzing the tasks for accuracy showed that both measures for global accuracy showed improvement from Task One to Task Two, as shown in Table 1.2 below. There were less total errors in Task Two, with a corresponding rise in percentage of error-free AS-Units. These results are also in line with the research hypothesis, which postulated that the presence of a deictic center would encourage more speaker collaboration and a shortening of AS-Units to less basic structures, often sub-clausal phrases which naturally have a higher frequency of accuracy.

**Table 1.2**

<table>
<thead>
<tr>
<th>Accuracy Analysis (Subject B)</th>
<th>Task One (non-deictic)</th>
<th>Task Two (deictic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Words Produced</td>
<td>523</td>
<td>700</td>
</tr>
<tr>
<td>Total Errors</td>
<td>67</td>
<td>59</td>
</tr>
<tr>
<td>Global Accuracy 1 (errors per 100 word)</td>
<td>12.81</td>
<td>8.43</td>
</tr>
<tr>
<td>Total AS-Units</td>
<td>81</td>
<td>115</td>
</tr>
<tr>
<td>Error-free AS-Units (full clauses only)</td>
<td>35</td>
<td>62</td>
</tr>
<tr>
<td>Global Accuracy 2 (% of error-free AS-Units)</td>
<td>43.21</td>
<td>53.9</td>
</tr>
</tbody>
</table>

The analysis for fluency revealed an improvement in both breakdown fluency and repair fluency from Task One to Task Two, as shown below in Table 1.3. Both percentages of mid-clause pauses and self-corrections dropped slightly, as would be expected with a drop in AS-unit length and complexity.

**Table 1.3**

<table>
<thead>
<tr>
<th>Fluency Analysis (Subject B)</th>
<th>Task One (non-deictic)</th>
<th>Task Two (deictic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Words Produced</td>
<td>523</td>
<td>700</td>
</tr>
<tr>
<td>Total Mid-Clause Pauses</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Breakdown Fluency (pauses per 100 words)</td>
<td>4.97</td>
<td>4.00</td>
</tr>
<tr>
<td>Total Self-Corrections</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Repair Fluency (self-corrections per 100 words)</td>
<td>4.21</td>
<td>2.43</td>
</tr>
</tbody>
</table>

6. Implications

The results showed a decrease in complexity, and a rise in both accuracy and fluency with the introduction of a visual aid into the activity. This falls in line with intuition, as in the adage *A picture is worth a thousand words* which similarly suggests that visual aids reduce the need for linguistic expression. Additionally, from the field of Pragmatics, the presence of a deictic center shifts some of the communicative responsibility from the speaker to the listener, as per the Cooperative Principle proposed by Grice (1967). Grice theorized that four ‘maxims’, Quantity, Quality, Relation, and Manner govern human conversation, and that any breakdowns in communication can be traced back to a violation of one of more of these maxims. The presence of a visual aid invokes the Manner maxim, which states that conversation participants should be as perspicuous as possible, not only by avoiding obscurity and ambiguity wherever possible, but also in relation to the speed and orderliness of their utterances. If it is obvious to the listener what the speaker is referring to, it would be a violation of the maxim to explicitly spell it out linguistically, therefore humans are subconsciously reticent to do so. Statements such as *There is a door in the back of the coffee shop that is open* would be natural in Task One, when the listener does not have access to the picture. However, it would be expected that this utterance would be shortened to *The door is open* in Task Two, when the listener can clearly see the door for herself.

With the syntactic complexity such reduced in Task Two, it is reasonable to expect that accuracy and fluency would conversely increase for language students, who have the chance to use more of the automated phrases and vocabulary that they have mastered. In addition, the use of the AS-Unit as the unit of analysis allows for the inclusion of sub-clausal phrases which greatly increased the calculations in Task Two, where G’s participation was much more prevalent. In the following excerpt from Task Two, AS-Unit boundaries are encoded between red vertical lines. Self-repetitions are
denoted by yellow highlight, and an omission error is denoted by a green underline where the omission occurred. Other grammatical or lexical errors have been crossed out in black.

**Task Two**

107.B: | [Yeah] | yeah | yeah |
108.G: This part one right?
109.B: | Yeah |
110.G: Should be have the add two menu
111.B: | Yes-yeah|, the, the, the other two, a soup and a egg |
112.G: Yeah, and this the sh-her hair’s, this is fault, right?
113.B: | Yeah |
114.G: ((unintelligible)) two and and is, she should not smile.
115.B: | Yeah |
116.G: Three, 
117.B: | Yeah |

According to this encoding style for B’s production, this short exchange encompasses 9 AS-Units, 8 of which are subclausal, and 7 of which are error-free. The only clausal AS-Unit on Line 111 contains 2 self-repetitions, 1 verb omission, 1 extraneous article, and 1 improperly formed article. While the incidence of G posing a question was not altogether absent in Task One, the absence of the visual aid forced G to make general questions as to the picture’s composition, such as *Table’s a circle table or a square table?*, which led B to respond with the clausal AS-Unit *I will say square table* rather than sub-clausal one-word responses as in the excerpt above. With a visual aid, G’s questions became focused and direct, allowing B to reply with simple sub-clausal affirmations, often only one word.

7. Limitations

This study was carried out with only one pair of students, thus limiting the conclusions that can be drawn. Due to the nature of the task, the first picture must be fully described without the students knowing what eight differences will appear on the second picture. When the second picture is revealed, inevitably some of the differences are in elements that were described in the first task. This leads to a slight practice effect, as the students will have an easier time describing the differences in elements they had discussed only a few minutes prior. However, the effect is small, as some of the differences are minor enough that the first time the students address the elements will be in Task Two. One possible control for the practice effect could be to have a second pair of students perform the task in reverse order and then average the results of the two pairs. However, this is also problematic as once the picture is viewed, the deictic center has been established. Concealing the picture for Task Two does not erase it from the participants’ minds, allowing the student with access to the picture to still use deictic terms which is what the study is hoping to analyze.

One part of the design that may have played a role in the students’ production was that of body language. In both tasks, B supplemented his verbal explanations with gestures, i.e. slapping his thighs when saying *on the other people’s legs*, or indicating his own shirt sleeves when trying to recall the word *sleeve*. B and G both pointed to the picture in Task Two on occasion, while saying *Here* or *This one*. To avoid this, the instructions could be amended to prohibit gesturing, and the task design could be altered by preparing two copies of the picture used in Task One, and giving both participants their own copy for Task Two.

8. Future Research

Both participants in this study were relatively competent in their English ability. B was more fluent verbally than G, but G had sufficient listening acuity to comprehend B’s speech, making the study go smoothly. If, however, the roles had been reversed and G was instructed to describe the picture and the differences to B, it is possible that the study would have generated different results. It is reasonable to hypothesize that the stronger speaker will try to assist the weaker speaker whenever possible, be it a lexical or syntactical difficulty. In such conditions, the complexity of the main speaker’s discourse will be thus affected. Conducting the study again with the weaker speaker taking the lead, or with pairs of students with lower proficiency could be done to analyze the effect these conditions have.

9. References

10. Appendix

Following are the actual materials used and the instructions given to the participants in the study. The pictures are from Look Again Pictures (Olsen, 1984) and are free for reproduction for classroom use. The transcript of the dialogs is also provided with a brief coding key.

**Task One**
(Student One) Your task is to describe this picture to your partner, but your partner cannot see the picture.
(Student Two) If you have any questions, you are free to ask anything you like.

**Task Two**
(Student One) This new picture has 8 points that are different from the first one. Your partner can see the first picture now, but she cannot see the new one. Please explain to her all the points that have changed.
(Student Two) You can ask any questions you like, and you are free to use gestures or point to the picture if you would like.
Task One Transcript

1. B: OK, this picture is ‘bout a (san)... a scene in a ... rr ... ah... cafe
2. G: Hai (Japanese)
3. B: K? <hh> So there’s a table sitting four people. Four students. And, ah, one of the students has... have... has... slip over the glass...
4. G: Hmm?
5. B: glass of or juice of or water... to the other one.
6. G: Slip over?
7. B: Yes, slipped over.
8. G: °Oh°
9. B: Yu, mm, yeah. <hh> Uhh... oh, it’s not sle::p but ahh... what say?
10. G: Sleep? Uhh...
11. B: No, not sleep. Uh.. turned over.
12. G: Tw::... yeah
13. B: The glass of, uh, water.
14. G: Hai (Japanese)
15. B: On the table. So, the water in the glass spilled out.
16. G: Spilled out?
17. B: On the table? and on the other people’s legs. ([B slaps his thighs])
18. G: Yeah.
19. B: K? This is part one. There is are the other one is the lady sitting at a bar and uh watching ahh and watching a men[u] ... me[nyu] ... and uh doing the order. And then the other guy in the bar is taking the order. ... Any question?
20. G: O-other guy is the ([unintelligible]) he’s the [stap] right?
21. B: Sorry?
22. G: Other guy is a [stap] right?
23. B: Is so yeah yeah yeah
24. G: Staff
25. B: Staff uh no no no no the other g- there’s only one staff in the bar. So there are four students at a table
26. G: Table’s [a::] [saikulu] table or square [table] hm
27. B: [having drinks] [I will say] square table (+) two and then two.
28. G: Hmm
29. B: Yeah. So there’s another lady sit on atta the bar and ah holding a menu and ah: yeah pointing something. I think she’s ordering
30. G: Hmm
31. B: and then the staff in the bar is taking a note.
32. G: °Hmmm°
33. B: <hh> Any other question?
34. G: Two ah in the table have the how many s-sex? Ah, two girls (or the three girls?)
35. B: two coup-ah, two couples. Cuz [there’s ah] [oh ... ok, cool, I see] I think that there are
36. G: [Two couples?]
37. B: Two couples, yeah, a girl and a boy sitting one side and the, the other boy and the another girl sitting on the other side. And is the is the boy ah turned the glass down. And is and the juice or the water in the glass slipped over on the table and on the other boy’s leg.
38. G: °Yeah°
39. B: <hhh> Yeah. They are panic.
40. G: Yeah ... [the] girls have ah the girls slip the water in the boy ... [ss:]
41. B: [yeah] [yeah] they I think that they yeah they are watching the ahhm they are looking at the glasses. They are very surprised to ...
42. G: Yeah ... whatever? Nothing?
43. B: Any question?
44. G: Ahh.... Have the only two sides? Have the bar and table?
45. B: Yy:yeah, there are two sides I think yeah, so is about two parts of the picture. On the left side is the table, and on the other side, the right side, is the bar.
46. G: Ahh
47. B: Yeah. <hhh> And ah ... what I can say? OK, there's a menu
48. G: Menus...oh
49. B: Yeah, there's menu on the ladies hand and there is ah like ah paper, poster of menu on the wall and ah from the picture I can see ahm, ice cream? Juice? potato chips? and a hamburgers.
50. G: Hamburger? Are these menu?
51. B: Yeah, this is there's a poster menu on the wall
52. G: Yeah...
53. B: And uh, there's I think that there's a menu like a book, on the lady's ah, hands.
54. G: And not-thing the f- not, not, the nothing food on the table?
55. B: No. The only drinks. [There are two...] c- two glasses of juice and a cup of coffee.
56. G: [Only drinks]
57. B: I don't know why but there's only three. *heh*
58. G: Okay
59. B: <hhh> Yup.
60. G: Yeah. The girl is the, short hair? Long hair?
61. B: Oh ok.
62. G: *giggles
63. B: Cool.
64. G: (unintelligible)
65. B: Aa::m, aa::m, tw- both of the girls has the long hair
66. G: Yeah
67. B: And the one of the boys ah curly? What say.
68. G: Curly?
69. B: Cu- ah, curly hair. The other one is ah, n-normal short hair. <hhh> Yeah. Mm hmmm.
70. G: Yeah
71. B: Let me see. ([unintelligible]) Yeah, that's it, it's a simple picture.

Total speech time: 4'24"

Task Two Transcript

1. B: Oh ok, I try to find the, ah, eight different points. <hhh> OK, let me see the um, first one.
2. G: Yeah?
3. B: We talk about the menu the poster of menu on the wall?
4. G: Yeah?
5. B: There are four kinds of uh food. [But] on this picture, ah, I have six.
6. G: [Mm]
7. B: The other two is a soup.
8. G: Soup?
10. G: Here? (pointing to the picture on display)
11. B: No on the po-poster, [ahm,] menu, yeah.
13. B: The soup menu and there is ah, I think is egg. Bacon egg menu.
14. G: Hmm, yeah. This is not appear here, right?
15. B: Yeah. Yy:eah, on the left side. There are more two. There are another two kinds of food. They [are offering.]
16. G: [OK]
17. B: This number one. <hhh> Aa::nd number two is the ah, we talk about the hair of the girls
18. G: Yeah
19. B: The-the girl on the left
20. G: (asks researcher) Can I (points to the picture) identify?
Analyzing the Impact of Visual Aids on Complexity, Accuracy, and Fluency in English L2 Learners' Discourse: A Case Study

21. T: [Yes] Yes
22. B: Yeah yeah yeah ok, the girl on the left
23. G: Yeah
24. B: The haircut is the same.
25. G: Yeah
26. B: But the other girl is different.
27. G: Yeah
28. B: The g- the other girl in this picture are curly? long hair
29. G: Y:eah
30. B: OK? And ah from the... number three is, ahm ... <hhh> the, yeah the first girl on the right we talk about <hhh> yeah. [She smiling], yeah.
31. G: [This?] Yeah.
32. B: [Bout] this [picture], she is not a smiling.
33. G: Hm, yeah.
34. B: OK.
35. G: This is the should be s- this is the string hair right?
36. B: Ye yea yeah. On this picture it’s curly.
38. B: Long hair. <hhh>
39. G: And this is smile. [Should] not
40. B: Uhn, [yeah.] Should not, yeah, smiling. OK. Let’s go number four. <hhhhh> Number foo:ur ii::s aah::: oh ok. Uh look at the straw on the on the juice. In the juice.
41. G: Yeah.
42. B: Aah, it’s on the ah, it’s on the l- ah, left side. Right?
43. G: Ee:h...
44. B: The straw on this picture is on the right side.
45. G: Yeah.
46. B: Uh, yeah. (+) So, yeah.
47. G: Yeah.
48. B: <hhhh> U:m, let me go li:ke number five. (+) Uh huh.
49. G: Right side- ((unintelligible)) he used in the picture, he used the [laif] hand for slave the girl’s...
50. B: (+) Sorry?
51. G: He used the [laif] hand
52. B: Oh, no no no. Oh the the straw. The straw in the glass.
53. G: Yeah. ... Straw in the glass.
54. B: The straw in the glass. So the straw (points to the picture) [in the glass] this one,
55. G: [Oo:h]
56. B: is on the left side.
57. G: Oo:h
58. B: and the straw in this glass, on this picture, is on the other side.
59. G: OK.
60. B: Ha ha. <hhh> OK, let me go l- uh- number five. (++) Number five is aa: about the:... ahm... the shoes of the lady’s. (+) [Feet.]
61. G: (points to the lady’s shoes in the picture)
62. B: Yeah. This is very short, [high heeled] shoes [ehh:] shoes. But on this one is like a boots.
63. G: [hmm:] [yeah]
64. B: Very, eh, tall, yeah tall boots. [This] number five.
65. G: [Yeah]
66. B: <hhh> Let’s go number six. (+) Number six is the ah, hair on the staff’s hea- ah, head.
68. B: Uhm, on this picture, on this picture, the staff has uh... a little bit hair on the top of the his head. ((unintelligible)) But on this picture, ahm, the top the hair on the top is gone.
69. G: (giggles) Is gone.
Analyzing the Impact of Visual Aids on Complexity, Accuracy, and Fluency in English L2 Learners’ Discourse: A Case Study

70. B: OK (snickers)
71. G: (piggles) OK.
72. B: OK, this number six, let’s go, try to um, go number f- ah- number seven. (++) Aa::nd ok oh ok I find it number seven. So on this picture, there’s a belt on the lady’s waist, can you see?
73. G: Mm hmm, [the belt?]
74. B: [the belt] yeah. So in the this picture no lady hasn’t a belt.
75. G: Hmm.
76. B: Let’s go the last one. (+) Hmm.. let’s go the last one, the last one...?
77. T: (directs B’s gaze to the location of the last item)
78. B: Oo:kay, I get it. (chuckles) Yeah. (+++ Uu:m ... this is like ... (+++) OK ok ok oh this very difficult one. Aa:hm, on the aa:hm: ... on the boy, who is ah going to stand up can you see that?
79. G: Yeah.
80. B: And on his lap there is hand.
81. G: Yeah.
82. B: There is ah short ah how say cleav- um, short ah (+) sleeve.
83. G: Sleeve.
84. B: Yeah. Can y- (+) short sleeve um um ah
85. G: Sh- short sleeve
86. B: Yes, sleeve. I will say this one (gestures to his sleeve) [sleeve]
87. G: [Yeah]
88. B: Yeah. <hh> So, on the sleeve on the sleeve there’s two stripe. (+) Ha ha ha
89. G: This is
90. B: Yeah, this is clothes right. [T-shirt.] This is shirt. On the.. ah.. on his, how to say... left hand.
91. G: [Yeah.]
92. G: Yeah.
93. B: There’s a two, there’s a short sleeve. And on this short sleeve, there’s ah two s-ah-streep. S-streep?
94. G: There?
95. B: Streak. Yeah. (+) Aa:nd but on this picture is the only (chuckles) one streak. (both chuckle)
96. G: These have two
97. B: Yeah yeah yeah.
98. G: This is sh-should be one?
99. B: Yeah, yeah. This one is streep. And this the number eight.
100.G: Yeah
101.T: Difference
102.T: Can you understand?
103.G: Yeah... oh... yes, yeah
104.T: OK. Yo-you don’t have any questions?
105.G: (++) OK, the- can I conclude it?
106.T: [Yes]
107.B: [Yeah] yeah yeah
108.G: This part one right?
109.B: Yeah
110.G: Should be have the add two menu
111.B: Ye-yeah, the, the, the other two a soup and a egg.
112.G: Yeah, and this the sh-her hair’s, this is fault, right?
113.B: Yeah.
114.G: ([unintelligible]) two and and is, she should not smile.
115.B: Yeah
116.G: Three,
117.B: Yeah
118.G: A:nd uh, this is the (+) yeah, the shirt?
119.B: [Has], has ah l- just one stripe. [Yeah.]
120.G: [Yeah] [Yeah,] should be one line
Analyzing the Impact of Visual Aids on Complexity, Accuracy, and Fluency in English L2 Learners’ Discourse: A Case Study

121.B: Yeah. [One line.]
122.G: [A nd]
123.B: Yeah
124.G: This is, should be err, boot
125.B: Yeah.
126.G: "Boots." Not have the...
127.B: Belt
128.G: Belt
129.B: Yeah
130.G: A nd, is this the should have (chuckles) don’t have
131.B: Yeah
132.G: Gone it
133.B: Yeah
134.G: Yeah
135.B: There’s no hair on the [top]
136.G: [yeah]
137.B: Yeah
138.G: And it is should be the other, other side.
139.B: Yeah yeah yeah the [straw] on the that side.
140.G: [yeah]
141.B: Yeah, this all the eight one.

Total speech time: 6’22”

Coding Key

B: Male student
G: Female student
[ Indicates where overlapping speech starts
] Indicates where overlapping speech ends
, Indicates a very short pause
… Indicates a longer pause
(+) A pause of between 0.1 and 0.5 of a second
(++) A pause of between 0.6 and 0.9 of a second
<hh> Indicates in breath; more h’s indicate longer in breath
((unintelligible)) Speech that is unintelligible
((Japanese)) Researcher’s comments or description of non-verbal items
"Oh" Degree signs indicate low volume speech
Yes A colon indicates the lengthening of the preceding sound; the more colons
the longer the lengthening of the sound
[saikul] Indicates the phonetic transcription of nonnative-like items
Menu Underlining indicates particular stress placed on a syllable
Ye-yeah A dash indicates an abrupt stoppage of speech

(平成 28 年 3 月 31 日受理)