

COMPARING PERCEPTION OF ORAL FLUENCY TO  
OBJECTIVE MEASURES IN THE EFL CLASSROOM

by

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## **ABSTRACT**

EFL conversation teachers, especially in casual contexts where it is not the norm, are sometimes called upon to comment on the fluency of their learners' in-class speech. In the absence of empirical evidence, judgments are made intuitively and the teacher is left wondering what factors influenced the assessment. This dissertation attempts to connect teacher perception of oral fluency in the classroom to established objective measures of oral fluency to determine which measures are informing perception. It first examines the literature on fluency judgments and the debate on which are most accurate, then goes on to describe the methods for the project: a comparison of a global fluency ranking for a mixed group of adult EFL learners with established fluency measures assessing the role of pauses, disfluencies, speech and articulation rates, and mean length of run on perceptions of fluency. After the comparison is complete, a post-investigation ranking is produced and the successes and shortcomings of the research outcomes are discussed.

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# 1. INTRODUCTION

I'm often asked by my employer to assess how learners are performing in their English conversation classes. Given that the classes are conversational in nature and there is no formal testing, performance is gauged principally in terms of spoken production during classes. In the absence of any kind of empirical measures to illustrate how proficient the learners' English speech is, I answer intuitively based on my experience of interacting with them on a weekly basis. Not finding this to be a particularly satisfying method of assessment, I have undertaken this project to apply a number of established fluency measures to my learners' spoken production to see if my intuitions are at all accurate and to highlight any significant differences between the advanced students and the intermediates.

Although there is a great deal of debate about what constitutes fluency (see Chambers, 1997 for an overview), for the purposes of this study fluency will be examined according to what Lennon terms the 'narrow sense' (1990: 389-390). This 'narrow sense' of fluency assumes that:

the goal is to produce speech at the tempo of native speakers, unimpeded by silent pauses and hesitations, filled pauses ("ers" and "erms"), self-corrections, repetitions, false starts, and the like.

Of primary importance in this study, and for oral fluency in general, is perception. Listeners or interlocutors make judgments about the fluency of speech they are hearing based on elements like the ones mentioned above. If a speaker pauses appropriately,

talks at a reasonable rate, and forms sentences clearly, they are likely to be perceived as more fluent than a speaker who does not.

Several studies, which will be discussed in detail, have taken the approach of comparing perceptions of fluency to objective measures. The method for most of these studies is to have a group of assessors listen to the recorded speech of second language learners and rate their fluency on a scale. The ratings are then compared to the learners' performance in various fluency measures to determine which variables likely informed the assessment. All these studies use organized tasks to elicit speech data from their learners and all have many fluency measures in common.

The decision on which fluency categories to examine in this study stems from the desirability of using measures that many previous researchers have found to be good indicators of oral fluency and my own interest in the simplicity of the measure. Simplicity of use is a necessity for working teachers whose need is for practical tools that can be used quickly and effectively for assessment. Elements of fluency which have garnered a good deal of attention in the field, and which will be employed in this study, are the frequency of disfluencies, pause phenomena, speech and articulation rates, and mean length of runs. In the interest of simplicity the measures will be treated quantitatively, focusing on frequency and duration. Qualitative analysis will come in the form of interpretation of results.

The aims of this investigation are to compare my intuitive ranking of the in-classroom oral fluency of my adult EFL learners with empirical evidence provided by the

application of a series of established fluency measures to samples of learner conversational speech and to compare learner proficiency level designations with said evidence. A pre-investigation subjective ranking will be compared to a post-investigation objective ranking to make clear any significant differences that emerge. The research questions addressed are as follows:

1. Does my subjective ranking of my learners' fluency match with what the objective evidence reveals?
2. In cases where the subjective ranking disagrees with the evidence, what are the possible causes of the disagreement?
3. Do learners placed in advanced proficiency level classes perform better in fluency measures than those placed in intermediate level classes?
4. Which of the fluency measures employed reveal the clearest evidence of fluency differences between advanced and intermediate learners?

This investigation will be presented here by first, in Chapter 2, providing a brief literature review outlining some of the prevalent reasoning behind the fluency measures to be employed. In Chapter 3, the collection of speech samples and their preparation will be detailed. Chapter 4 will describe the creation of the pre-investigation fluency ranking and detail the methods for use of objective fluency measures for comparison to the ranking. The results of all assessments and fluency measures applied to the speech samples will be presented in Chapter 5, followed by discussion of their implications for the research questions in Chapter 6. Finally, Chapter 7 will assess the success of the study and offer direction for future research.

## **2. LITERATURE REVIEW**

### **2.1 Overview of previous studies**

In recent years there have been a number of studies completed on the perceived oral fluency of second or foreign language learners (Lennon, 1990; Riggenbach, 1991; Freed, 1995; Derwing et al., 2004; Kormos and Den'és, 2004; and Leedham; 2006, all of which will be cited throughout this section). All of these studies have taken the approach of comparing the perceptions of observers regarding the fluency of learners' spoken production with established objective fluency measures.

Some of these studies compare learners of different fluency levels (Riggenbach; Kormos and Den'és) or compare a group of learners' performance on different tasks (Derwing et al.), others gauge improvements in learners after periods studying abroad (Lennon; Freed; Leedham). The size of learner groups examined ranges from very small (2 for Leedham) to relatively large (20 for Derwing et al.) as does the size of assessor groups (6 for Freed; 31 for Derwing et al.). Assessor expertise and background exhibits variety as well, with raters described as 'untrained judges' (Derwing et al.), native-speaking (Lennon; Leedham) and non-native (Kormos and Den'és) EFL teachers, among others.

Most of the studies use formalized speaking tasks to elicit their speech samples. Lennon uses the telling of a story based on a series of pictures, as do Kormos and Dene's and Derwing et al. Conversational data is recorded in the studies of Derwing et al. and Leedham, both in one-on-one situations.

The general methodology involves having raters listen to (or in the case of Leedham's study, read) samples of learner speech and assign a fluency rating. The fluency scales in these studies range from simply deciding which of two recordings is more fluent (Lennon) to marking on scale of '1 (extremely fluent) to 9 (extremely dysfluent)' (Derwing et al: 664). Instructions to raters on what to look for range from no instructions at all (Kormos and Den'es; Leedham) to brief descriptions on elements of fluency, such as speed of delivery or pauses (Lennon; Derwing et al.). Objective fluency measures are then applied to the speech samples and the results are compared to the fluency ratings to highlight which measures likely influenced the ratings. Although the fluency measures differ somewhat across the studies, there are a number of similarities which have led to the selection of the fluency measures employed for this study.

## **2.2 Fluency measures**

### **2.2.1 Pauses**

#### **2.2.1.1 Defining types of pause**

In the literature discussing pause phenomena, two types of pause are consistently mentioned.

#### **Unfilled pauses**

Unfilled pauses refer simply to brief periods of silence within spontaneous speech turns.

#### **Filled pauses**

Filled pauses are somewhat harder to classify because of disagreement over what



constitutes a filled pause. Taboada (2006: 29) notes that distinction between discourse markers and filled pauses is not always clear and classifies only non-words as filled pauses. Others (Beattie, 1977; Maclay and Oswood, 1959) include discourse markers like “well” and “so” as filled pauses. Some researchers treat non-linguistic sounds such as “uh” and “um” as words (Howell et al, 1999: 481, Clark & Fox Tree, 2002) while others (Lennon, 1990) do not. Shriberg only counts “um” and “uh” under the category of filled pauses, considering them linguistic elements distinct from ‘non-linguistic intrusions such as laughter or coughing’, and also eliminates discourse markers such as “well” or “like” ‘because they are arguably part of the speaker’s intended utterance’ (1994: 2). The current study will take an inclusive approach.

#### **2.2.1.2 Relationship of pauses to perceived fluency**

Chambers (1997: 538) states that ‘presence, length and frequency of silences and hesitations affect the listener's perception of an interlocutor's fluency’, pointing out that while pause and hesitations are natural features of fluent speech, such features in learners’ speech may be more likely to be thought of as disfluent. This view is what guides the research conducted here in regard to pausing.

A lower frequency of filled (Lennon, 1990; Freed, 1995) and unfilled (Riggenbach, 1991) pauses has been found in some studies to be a good indicator of fluency. This is not to say that elimination of pauses is the desired goal of fluency development. Rose (1998) suggests that filled pauses may be beneficial to learners; as listeners by giving them time to process information, and as speakers by providing them with turn-holding tactics to improve fluency. Beattie’s (1977) research suggests that unfilled pauses are

more likely to lead to interruptions and that these silent pauses are often followed by filled pauses in an effort to prevent such interruption. For these reasons, filled pauses are not necessarily to be viewed as detrimental to fluency, though overuse would likely be perceived as such.

Edwards (2001: 129-130) points out that, in her experience, 'fairly long' pauses and silences are 'an integral part of the turn-taking process' for Japanese speakers who are accustomed to pausing between speaker turns in conversation. This observation reflects my own experience as an English teacher in Japan. Whether it can be definitively stated that this pausing pattern applies to turn-internal pauses is a matter for further research to decide. I suspect, however, that the learners' in the current investigation may exhibit longer turn-internal pauses than the subjects of previous studies. Lennon (1990: 414) also asserts that individual unfilled pause length is an important factor in fluency judgments but his results were inconclusive in regard to amount of filled pause time in total speaking time (1990: 410).

A dissenting opinion can be found in the work of Kormos and Den'és (2004: 156), who find that the number of unfilled and filled pauses have no bearing on fluency ratings. They also point out that fluency judgments related to frequency of pauses differ according to the numbers of subjects examined. Small group studies (e.g. Freed, 1995, 2000; Lennon, 1990; Riggenbach, 1991) found strong connections between pause frequency and fluency ratings, while larger groups (Rekart and Dunkel, 1992; van Gelderen, 1994) did not.

## **2.2.2 Disfluencies**

### **2.2.2.1 Defining disfluency**

Shriberg (1994: 1) describes disfluency as ‘linguistic material (which) must be deleted to arrive at the sequence the speaker “intended”’. This view is in line with the concept of ‘pruned syllables’ (Lennon, 1990; Mehnert, 1998; Derwing, 2004) which requires the removal of disfluent syllables from speech samples to arrive at a more accurate measure of fluency.

While it is a relatively simple matter to interpret what a learner intends as their message, descriptions of disfluency types vary from study to study and can make labeling a transcript a confusing process. Branigan et al (1999) use terms like repeat, delete, insert, and substitute while Foster et al (2000) describe false starts, self-corrections, and repetitions. No one labeling scheme encountered in the literature was entirely satisfying, so the current study describes its own labeling system in Chapter 3.

### **2.2.2.2 Relationship of disfluencies to perceived fluency**

Disfluencies other than pausing also play a role in how fluency is perceived. When listeners perceive that speech is disfluent, they become ‘aware of the production process under strain’ (Lennon, 1990: 391). Lennon (1990: 394-395) draws attention to the possibility that ‘repetitions, self-corrections and the like are... more likely to be interpreted as dysfluency’ when they are produced by a learner than by a native speaker. Learners who exhibit a large proportion of disfluencies in their speech are then likely to be considered as less fluent than those who produce few.

### **2.2.3 Speech and Articulation Rates**

These two measures are considered together because they are closely related.

#### **2.2.3.1 Defining speech and articulation rates**

Speech rate, the number of syllables a speaker produces divided by the amount of time including internal pauses taken to produce them, is an element of fluency assessment examined in the work of a great many researchers in the field in studies dating from the 1950s to the present (see Goldman-Eisler, 1956, Pimsleur *et al.* (1977), Mohle (1984), Lennon 1990, Riggenbach, 1991, Chambers, 1997, Ejzenberg, 2000; among many others). Speech rate alone, because it includes pause time, is not thought to give a clear enough indication of the actual rate of production of syllables so many recent studies use articulation rate as an additional measure (Griffiths, 1991; Kormos and Den'es, 2004; Cucchiarini and Strik, 1999). Articulation rate is the number of syllables produced over a given period of time 'excluding any time devoted to pausing' (Towell, 1987: p. 163). Howell et al (1999: 481) support the removal of disfluent syllables including filled pauses and partial words in addition to unfilled pauses in the calculation of articulation rate. Riggenbach recommends their inclusion on the grounds that they are 'recognizable as words' (1991, p.428).

#### **2.2.3.2 Relation of speech rate to articulation rate and pauses**

It is generally agreed that speech rate is a good indicator of fluency because it factors in both articulation rate and pause time (Chambers, 1997: 538; Cucchiarini and Strik, 1999) and as such provides an encompassing idea of how efficient the process of production (Levelt, 1989). The connection between speech rates and pausing is

thought to be stronger than between speech rate and articulation however. Goldman-Eisler reported that ‘duration and frequency of halts and pauses’ (1956: 142) was the determining factor in overall speech rate, a finding supported by many others (Deese, 1984; Lennon, 1990).

#### **2.2.3.3 Relationship of speech and articulation rates to perceived fluency**

The relationship between speech and articulation rates and perceived fluency is rather simple; the higher the rate, the higher the fluency. Schloff and Yudkin (1991) assert that making mistakes is preferable to speaking too slowly. However, learners should be made aware that trying to achieve the highest possible rate of speech is unnecessary when a reasonable rate will suffice (see Brown, 2003).

#### **2.2.4 Mean length of run**

##### **2.2.4.1 Defining mean length of run**

Mean length of run refers to the mean number of syllables found between filled and unfilled pauses in turns of speech. According to Leedham (2006) mean length of run is an ‘increasingly common measure of fluency’ and its use in numerous recent studies supports the claim (see Lennon, 1990; Riggensbach, 1991; Towell et al, 1996; Freed, 1995, 2000; Ejzenberg, 2000; Wolf, 2008 among others).

#### **2.2.3.3 Relationship of mean length of run to perceived fluency**

Improvements in fluency over time correlate strongly with longer MLR in numerous studies (Raupach, 1987; Lennon, 1990; Towell, 1996) and advanced learners have been shown to produce longer runs than intermediate learners (Kormos & Den’es, 2004).

Freed (2004: 285-286) takes the investigation of MLR further, examining a wide variety of types of speech run, differentiating between Hesitation-Free Speech Runs, Filler-Free Speech Runs, Fluent Runs, Repetition-Free Speech Runs, and Grammatical-Repair-Free Speech Runs. The current investigation will be limited to the examination of two measures of run length.

### **3. COLLECTION AND PREPARATION OF SPEECH SAMPLES**

This chapter details the process of collecting and preparing the speech samples to be analyzed for the analysis.

#### **3.1 Subjects and type of speech**

##### **3.1.1 Learners and levels**

The data analyzed in this research project was taken from five English conversation lessons recorded in a single week at a small private language school in southern Japan. Each lesson was approximately one hour in length and the number of learners in each ranged between three and five. The classes recorded are designated as advanced and intermediate though it must be noted that such level designations are rather loose. Since the school is small, there are limited choices of classes for learners. Learners tend to come whenever is convenient for them and, as a result, may sometimes be placed in a class that is either above or below their actual ability level. Though this is less than ideal for both teacher and learners, it is the nature of such learning environments. That being said, three advanced and two intermediate classes were recorded, with ten and eight students divided between them respectively, for a total of eighteen learners.

The learners recorded for this study come from a cross section of backgrounds and experiences, though all are Japanese and all have been through the Japanese English education system beginning in junior high school. Six are male and twelve, female.

Their ages range from late teens to early seventies, occupations from students to professionals to homemakers, English experience from several months abroad to only at home. Though this eclectic mix of learners likely is reflected in some ways in the data no attempts will be made to classify results along the lines of age, gender, educational background or the like. To preserve anonymity, learners are only identified by number.

### **3.1.2 Type of speech recorded**

Rather than using a controlled type of activity where all students produce roughly the same amount of language on the same type of task, as most similar research projects have done, I wanted to gather data in a typical English conversation classroom situation. The mandate at my current school is to “just talk with them” under the belief that English is improved or maintained through using it. English conversation schools, in my experience, are often places where the lessons tend to be unstructured and the students interact with the teacher and each other using whatever comes up as a topic of conversation.

The students seem quite accustomed to this method of instruction and the few attempts I have made to introduce structured activities have been met with disinterest, frustration or even outright hostility. Most of the students come for their own enjoyment and not for focused study, so asking students to participate in a controlled exercise in order to gather the data for this research would be far from their natural experiences of learning English. The data used in this research is therefore taken from recordings of regular lessons which I regard to be typical in my current teaching context.



### **3.1.3 Topics introduced**

The general structure of my English conversation classes is to begin by asking “What’s new?” and allowing the students to speak about whatever they choose and in any order they choose. Certain learners are likely to always volunteer to go first, while others tend to sit back and wait to be called upon. Because the choice of topic is purely the learners’ choice, the difficulty of topic is in their hands. As a result, some learners in this study may have chosen to speak on a topic that presents fluency problems in terms of vocabulary. Other learners chose to speak on a topic that was very familiar to them.

In the advanced classes, there was a tendency toward the introduction of topics from the news or other sources outside their personal lives. Intermediate students tended to talk about things that were more personal to them. In one class a learner new to the class (though familiar to me) was present, so learners introduced themselves. In most cases the topics introduced by the learners were enough to generate sufficient data for the project. In some cases more prompting was necessary, such as the introduction of a conversation board game to draw more speech from the class.

While this extreme difference in topics presents problems in terms of comparison between learners, it is representative of the type of speech produced by EFL learners in English conversation classes. Cases where the topic seems to have an effect on a fluency measure employed in this research will be noted in the discussion of the results.

## **3.2 Recording and selecting samples**

### **3.2.1 Recording**

After obtaining the consent of the learners, a small audio recording device was used to record the entirety of each lesson. Because the recording was done with a small handheld device placed in a fixed position on a long table, the learners are at varying distances from the device. This coupled with learners' own personal vocal volume levels, means that some learners are more difficult to hear than others. Also because the recording was done in a group context, there are occasions of background noise, caused by late entry to the classroom, coughing, moving of chairs, etc. that obscure the sound. That being said, there were relatively few instances where a learner could not be heard or understood.

### **3.2.2 Transcription**

The first step after the lessons were recorded was to transcribe them all. This was done using a software program called Audacity (2007). Each of the five lessons was transcribed in its entirety to obtain a clear picture of possible segments for further analysis. The number of words was also counted using Wordsmith Tools (2007) to tally the amount of words produced by each learner. While an analysis by syllable rather than by word was ultimately used, the word count was useful in providing a starting point to look for appropriate segments and to give a general idea of the amount of language produced by each learner. Table 3.2.2 shows the word count for each learner.

**Table 3.2.2 Learner Wordcount**

Learner & Level	Rank	Tokens
S15 Adv	1	1449
S6 Adv	2	1318
S9 Adv	3	1127
S13 Int	4	867
S12 Int	5	828
S1 Int	6	666
S11 Adv	7	634
S7 Adv	8	630
S2 Int	9	598
S16 Adv	10	574
S17 Adv	11	534
S14 Int	12	450
S3 Int	13	408
S4 Int	14	340
S5 Int	15	325
S10 Adv	16	297
S8 Adv	17	203
S18 Adv	18	44

### **3.2.3 Selection of Segments**

Once the lessons were fully transcribed, segments were selected for further analysis. A target of approximately 300 syllables per learner was thought to be suitable for proper analysis. The ideal segment was thought to be one long run of turns by a learner interacting with the teacher, with few interjections or interruptions from the other learners. In some cases this was easily found, in others two or three segments were necessary to reach the agreed upon number of syllables to analyze.

Once seemingly suitable segments were identified, the speech produced by the learner was broken down by and the syllables counted to be sure that the number of syllables was reasonably close to the target of 300 per learner. An effort was made to end the segments at a natural stopping point, leading to slightly more or slightly fewer syllables

being analyzed per learner.

It was at this point that two learners were eliminated from the study due to having produced far from the target number of syllables. The two learners came from two separate advanced classes and the reason for their lack of production could be attributed in one case to a general lack of oral contribution to lessons and in the other perhaps to the presence of the recording device, though this is only speculation. This left eight advanced and eight intermediate learners to be assessed.

### **3.3 Mark-up of segments**

Facilitating the analysis of the gathered speech samples required each segment to be carefully examined and marked to highlight the pertinent details. In the initial transcription, all participants' speech during each segment was included and timing of each turn and pause between turns was calculated using the Audacity software, measured to the nearest hundredth of a second. Since the focus of the study is only the spoken production of each learner, all other data was then removed, leaving only the turns of the main learner in each segment. The remaining transcription was then marked for pauses and other disfluencies so the frequency and duration of each fluency measure could be calculated. The marked transcriptions can be found at the end of this paper in Appendix 2.

#### **3.3.1 Labeling of pauses**

##### **Pause timing**

There is been a great deal of disagreement about how much time to judge as a pause in

this type of research. Lennon (1990) and Cucchiarini et al (1998) use a cut-off point of 0.2 seconds, Towell (1996) uses 0.28 seconds, and Riggensbach (1991) identifies several distinct types of pauses ranging from 0.2 to 0.5 seconds. Towell et al. acknowledge the debate while warning of the pitfalls of too high or too low a cut—off, finally reminding that the important thing for the researcher is ‘to be sure of comparing like with like’ (1996: 91).

0.3 seconds was settled on as the cut-off point for pauses since this duration falls somewhere in the middle of the debate, was easy to identify with the Audacity software used for transcription, and seemed neither too long nor too short on re-listening to the speech samples. This measure was applied to both unfilled and filled pauses, resulting in the need for the identification of a special type of filled pause that was transcribed in the same manner as filled pauses but fell short of the 0.3 second time marker. This was labeled this as a short filled pause (sfp) and it was counted in syllable tallies but not for timing of pauses.

### **Identifying pauses**

In this study, an inclusive approach was taken to the identification of filled pauses. Hesitations transcribed as “uh” and “um”, among other transcriptions, make up the largest part of the filled pause counts and in this investigation they are tallied in syllable counts. Another occurrence included as a filled pause were occurrences of vocalized inhalations. These sharp intakes of breath are clearly audible on the recording and are interpreted as serving the same function as “uh” or “um”. Japanese use (Jp), laughter (la) and coughing (iv) are noted as filled pauses for the purposes of timing and count but

treated differently in terms of disfluency.

Certain occurrences of discourse markers were also interpreted as filled pauses when it was judged that the learner was using the marker in an unusual manner. S15Adv, for example, uses “anyway” several times in the data. When it is used to bring the conversation back to a topic or to change the subject it is considered as part of the intended utterance.

Ex. Yeah but **any** anyways **<f=0.61> uh** about the Japanese shogi.

When “anyway” is used to as part of a string of disfluencies it is considered a disfluency itself.

Ex. ...couple of years ago **the the anyway** the human easily defeats the computer.

S7Adv can be found to use “so” in a similar fashion.

### **Transcribing pauses**

In most instances, filled pauses were transcribed as “uh” or “um”, though occasionally other transcriptions, such as “mm” or “eh” were also used. This was done purely intuitively and another researcher may transcribe the same sounds differently. As mentioned in the section above, a few discourse markers were labeled as filled pauses. Care was taken to be sure that expressions of agreement or surprise were not labeled as filled pauses.

### **3.3.2 Labeling of disfluencies**

As mentioned in section 2.2.2.1 of this paper, due to confusion and dissatisfaction with disfluency marking schemes in the literature led to the following labeling system being used.

### **Major disfluency types**

A number of disfluency types were identified as being frequent in the transcripts.

#### **restart (rs)**

Restart refers to times when learners restart their message before the completion of a section of the message for various reasons. This could include the need to add a word.

Ex. I had <f=0.31> uh many tourn tennis tournaments

This measure also includes restarts of words that were not completed in the first uttering.

For the purposes of this research it was felt that this notation would be clearer than referring to such instances as repetition.

Ex. After afternoon.

#### **self-correction (sc)**

Self-correction refers to instances where the learner makes a significant change to their message including instances of a learner choosing different vocabulary,

Ex. And there has no place to sh uh to hide.

or where the learner asks for help before changing their vocabulary choice.

Ex. on Golden Week <u=0.34> In on in? | <laugh=1.43>? (T assist) Mm. In Golden Week

Instances where multiple words are inserted are included under self-correction. This is felt to be more a more involved form of self-correction than restart, so it is included here.

Ex. be become <u=0.94> <u=0.84> eh from the top <u=0.46> become red.

Other instances of self-correction include, but perhaps are not limited to: changes in word order, changes in tense, changes of pronoun or addition and subtraction of plural forms.

### **repetition (rp)**

This measure refers to instances where the student doesn't make significant changes to the message, but simply repeats an entire word or phrase. In the case of repeated words, the first word in the turn is marked as the repeat rather than the last, since it is possible that it may have led to a restart or a self-correction.

Ex. I <f=0.49> uh I watched <u=0.89> operation.

Ex. So <u=0.62> but | <f=0.62> eh but <f=0.47> eh but I think it is just joke but it's real thing.

On some occasions what at first was a repeat then becomes a self-correction. In these instances the first repeated word is noted as such but the subsequent syllables are marked as a self-correction.

Ex. The <f=0.72> uh <u=0.82> the doctor i her doctor in charge <u=0.32> was <f=0.53> uh surprised.

The first "the" is a repeat because another "the" follows it. However, the second "the" is then self-corrected as "her".

### **Minor disfluency types**

The following categories are not as frequent as pauses, restarts, self-corrections, and repetitions but they are nonetheless significant when calculating time spent holding the floor, number of syllables produced and so on.

### **aside (as)**

Asides can take several forms, but their defining characteristic is that they are not part of a learner's intended message, but rather stand outside of the message. They can be formulaic expressions a learner uses when searching for vocabulary,

Ex. So, it was very um How can I say? bad time.



instances where the learner was backchanneling:

Ex. <f=1.26> uh I was <u=0.49> exhausted because (T: Mm.) Mmhm <f=0.95> um  
<u=0.81> this this is the time

“Mmhm” in this instance was not part of the intended message but rather a response to the teacher’s “Mm.”

Questions to the teacher in search of help for the intended message (ie., vocabulary) are also noted as asides,

Ex. on Golden Week In on in?

Questions to oneself, as in “Is that right?” manifested as “Mm?”, were also noted as asides,

Ex. protect the <u=0.67> <f=0.51> uh <u=1.04> ha <u=0.47> harm? <u=0.33> Mm?  
as was anything said by a learner to themselves:

Ex. sixteen thousand <u=0.40> uh no <f=0.94> eh fourteen

### **repeat after teacher (tr)**

Several instances were noted of the teacher providing vocabulary or offering correction which was then repeated by the student. Since the repeated words were not considered part of the students’ message they are omitted from the count of syllables produced by the learner.

### **Japanese language (Jp)**

On some occasions in the data, learners revert to using their first language, in this case, Japanese. This is done for a variety of reasons. Sometimes it is to ask for assistance from another learner, sometimes it is an aside to help them think, and sometimes it is a nearly unconscious filled pause. Each instance of Japanese use is counted as only one occurrence and timed rather than counted for individual syllables, partly because my Japanese is not good enough to count all the syllables and partly because when Japanese

is spoken in my classroom, it tends to be whispered and is therefore often barely audible on the recording. Japanese vocabulary words like place names, book titles, and other nouns that could conceivably be used in an English conversation are left and the syllables are counted.

#### **indecipherable (in)**

On rare occasions it was impossible to tell what the learner had said. This could be the fault of the learner in terms of enunciation, the fault of background noise, or the fault of a flaw in the recording. As such, these are noted but not counted as disfluencies, nor is their time included in calculations. There were only three occurrences in the data.

#### **involuntary (iv)**

Involuntary disfluencies include coughs, sneezes, etc. Again, since these are not considered as purposefully done to stall for time they are noted but not considered significant in weighing fluency. The time of these occurrences is noted and they are counted in overall pauses. They are not, however, counted as disfluencies and so are not noted in disfluency statistics.

#### **laugh (la)**

Laughter was noted since on many occasions it added significant time to a learner's floor time. Laughing time was added to pause time and each instance was counted for overall pauses. It was not considered to be a disfluency, though it would perhaps be of interest in future studies to note when laughter is appropriate or not.

## **4. FLUENCY MEASURE CALCULATIONS**

The purpose of the study conducted for this dissertation is to compare my intuitive assessment of my learners' oral fluency with recorded samples of their classroom speech subjected to a number of fluency measures. A secondary purpose is to assess the results in terms of learner levels to determine which fluency measures may be useful for assessment of learner level in my teaching practice in future.

This chapter describes the creation of the pre-investigation fluency ranking and gives details on the calculation methods to be applied to the various fluency measures.

### **4.1 Pre-investigation fluency ranking criteria**

Prior to undertaking the detailed analysis of data gathered, the students were ranked according to my perceptions of their fluency based of their performance in classes. At the time of recording my familiarity with the learners analyzed covered a broad range. Some of the learners had been taking lessons with me for more than six years, others I had seen only for a few months. Ranking was based on an intuitive feeling about the performance of the particular learner and was colored by aspects like the amount of speech a learner generally contributes to the lesson, perceived ease of flow of speech, efforts to keep topics going, etc. rather than on a checklist of the fluency measures to be applied in the analysis. This one number ranking of global fluency is similar to studies where assessors are simply asked to rate speech samples as more or less fluent (Kormos and Den'és, 2004). The basic question to myself when ranking the students was "Is learner A more or less fluent than learner B?" In order to rank all the students, they

were first ranked according to their classes and then within all the learners as a whole. One of the purposes of the research undertaken here is to assess the accuracy of these intuitive rankings with the evidence revealed by detailed analysis. The ranking tables will be found in section 5.1.

## **4.2 Fluency measure calculations**

### **4.2.1 Number per 100 syllables**

Number per 100 syllables is used because all learners produced slightly different numbers of syllables in their samples and is a measure that will be applied to disfluency phenomena found in the speech samples including: pauses (overall, unfilled, filled, and short filled pauses) and disfluencies other than pauses. To calculate number of \_\_\_\_\_ per 100 syllables, the total *number of the type of phenomena* being measured is *divided by the number of syllables* in the speech sample. The sum is then *multiplied by 100* to give the number per 100 syllable count. In this study, all numbers are rounded to the nearest hundredth.

### **4.2.2 Average seconds of pause**

Average seconds of pause per minute is a measure that will be used for overall, unfilled, and filled pauses. To calculate this measure, the number of seconds of *total pause time* is *divided by* the time spent speaking (*time holding floor*) and the result is multiplied by 60. For the average seconds of overall pause, all pauses will be counted including time spent speaking Japanese (*Jp*) and involuntary sounds or laughter (*iv/la*) [Note: *iv* and *la* are grouped together only for space reasons because there are few instances.] For unfilled and filled pauses only the specific pause named will be counted.

#### **4.2.3 Average length of pause**

Average length of pause calculates the length, in hundredths of seconds, of each individual pause found in a speech sample. Overall pause will count all timed pauses, including *Jp*, and *iv/la*; filled and unfilled will count only those specific types. To calculate average length of pause, the *total pause time* is *divided by* the number of *total* pauses.

#### **4.2.4 % of Disfluent syllables**

Percentage of disfluent syllables is calculated by *subtracting* the number of *pruned syllables* from the number of *total syllables* in a sample. The result is the number of *disfluent syllables* which is then *divided by* the *total number of syllables* and *multiplied by 100* to give a percentage.

#### **4.2.5 Speech and articulation rate**

Speech rate measures the speed of delivery of the words produced for a speech sample per second or minute; this study shows both. Speech rate counts the syllables and all pauses in its measurement. To calculate speech rate the *number of syllables* is *divided by* the *time holding floor*. This gives *syllables per second* measure which can then be *multiplied by 60* to find *syllables per minute*. The calculations here are for both total and pruned syllables to illustrate the influence of disfluencies on speech rate.

The calculation for articulation rate is the same as for speech rate, only the pauses are removed.

#### **4.2.6 Mean length of runs**

Mean length of run between pauses measures the average number of syllables produced in runs of speech between pauses to give an idea how much is said without interruption. Mean length of run is calculated by dividing the number of by counting the *number of syllables between pauses* and the *number of runs between them*. Those two figures are then divided, *syllables divided by runs* to find the mean length of run.

Mean length of runs between disfluencies is calculated in the same way, except that all all disfluencies (including pauses) are counted and the syllables between each disfluency make up a run.

#### **Conventions for results tables**

Most of the tables presented in the results chapter of this study follow the same conventions which bear some explanation here to aid in their interpretation. The leftmost column lists the *Learner & Level*, represented by a learner's designated number and levels abbreviated as *Adv* for advanced and *Int* for intermediate (ex. S1Int). The learner numbers were not changed after the elimination of two subjects (see section 3.1.2.3) so there is no S8 and the last of the sixteen learners is designated as S17. The column labeled *O Rank* lists the learner's overall pre-investigation fluency rank out of sixteen. The next column, *C Rank*, gives the learner's rank out of sixteen for the fluency measure being examined in the table. The column *P/M* indicates how C Rank compares to O Rank, using + if the C Rank is higher, - if it is lower, and = if it the same as the O Rank. The remaining columns, with self-explanatory descriptions, detail the figures needed to reach the result presented in the rightmost column. Exceptions to

these conventions will be explained as they arise.

## 5. RESULTS COMPARING FLUENCY RANKING AND OBJECTIVE MEASURES

### 5.1 Pre-investigation fluency ranking

Table 5.1 shows the pre-investigation fluency ranking described in section 4.1 of the previous chapter. The results in the table will be used to gauge the level of agreement between the teacher's intuition and the objective results of the following fluency measures.

**Table 5.1 - Pre-investigation Rank**

Learner	Level	Rank
S6	Advanced	1
S15	Advanced	2
S7	Advanced	3
S9	Advanced	4
S17	Advanced	5
S1	Intermediate	6
S16	Advanced	7
S11	Advanced	8
S12	Intermediate	9
S13	Intermediate	10
S2	Intermediate	11
S10	Advanced	12
S3	Intermediate	13
S5	Intermediate	14
S14	Intermediate	15
S4	Intermediate	16



## 5.2 Number of pauses per 100 syllables

### Overall pauses per 100 syllables

**Table 5.2.a - Overall pauses per 100 syllables**

Learner & Level	O Rank	C Rank	P/M	# of up	# of fp	# of sfp	# of Jp	# of iv/la	Total # of pauses	Syllables examined	# of pauses per 100 syllables
S6 Adv	1	1	0=	23	12	0	0	2	37	306	12.09
S15 Adv	2	2	0=	9	16	10	0	2	37	296	12.5
S1 Int	6	3	3+	27	14	0	0	0	41	309	13.27
S12 Int	9	4	5+	31	8	5	1	8	53	300	17.67
S7 Adv	3	5	2-	28	11	15	0	0	54	297	18.18
S16 Adv	7	6	1+	15	17	21	8	1	62	306	20.26
S17 Adv	5	7	2-	28	24	2	1	8	63	299	21.07
S10 Adv	12	8	4+	29	17	13	0	5	64	291	21.99
S5 Int	14	9	5+	42	18	12	3	0	75	299	25.08
S4 Int	16	10	6+	42	23	1	6	8	80	295	27.12
S13 Int	10	11	1-	42	37	6	3	1	89	327	27.21
S2 Int	11	12	1-	57	24	6	4	6	97	310	31.29
S14 Int	15	13	2+	62	25	8	3	3	101	303	33.33
S3 Int	13	14	1-	35	53	11	3	2	104	306	33.99
S9 Adv	4	15	11-	44	52	6	7	1	110	293	37.54
S11 Adv	8	16	8-	71	37	10	10	0	128	312	41.03
<i>Average</i>				<i>36.56</i>	<i>24.25</i>	<i>7.88</i>	<i>3.06</i>	<i>2.94</i>	<i>74.69</i>	<i>303.06</i>	<i>24.6</i>
<i>Overall average - Intermediate</i>				<i>42.25</i>	<i>25.25</i>	<i>6.13</i>	<i>2.88</i>	<i>3.5</i>	<i>80</i>	<i>306.13</i>	<i>26.12</i>
<i>Overall average - Advanced</i>				<i>30.88</i>	<i>23.25</i>	<i>9.63</i>	<i>3.25</i>	<i>2.38</i>	<i>69.38</i>	<i>300</i>	<i>23.08</i>

O Rank - Overall pre-investigation rank

C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

up - unfilled pauses

fp - filled pauses

sfp - short filled pauses

Jp - Japanese usage

iv - involuntary pause

la - laughter

Table 5.2.a shows fairly high degree of agreement between my rating for and the evidence with only 6 of the 16 learners exhibiting a significant difference. Advanced learners can be seen to perform better than the intermediates by a margin of 3.04 fewer pauses per 100 syllables. 6 advanced and 2 intermediate learners produced fewer than the average number of pauses.

## Unfilled pauses per 100 syllables

**Table 5.2.b Unfilled pauses per 100 syllables**

Learner & Level	O Rank	C Rank	P/M	# of unfilled pauses	Syllables examined	# of up per 100 syllables
S15 Adv	2	1	1+	9	296	3.04
S16 Adv	7	2	5+	15	306	4.9
S6 Adv	1	3	2-	23	306	7.52
S1 Int	6	4	2+	27	309	8.74
S17 Adv	5	5	0=	28	299	9.36
S7 Adv	3	6	3-	28	297	9.43
S10 Adv	12	7	5+	29	291	9.97
S12 Int	9	8	1+	31	300	10.33
S3 Int	13	9	4+	35	306	11.44
S13 Int	10	10	0=	42	327	12.84
S4 Int	16	11	5+	42	295	14.24
S5 Int	14	12	2+	42	299	14.05
S9 Adv	4	13	9-	44	293	15.02
S2 Int	11	14	3-	57	310	18.39
S14 Int	15	15	0=	62	303	20.46
S11 Adv	8	16	8-	71	312	22.76
<i>Average</i>				<i>36.56</i>	<i>303.06</i>	<i>12.03</i>
<i>Overall average - Intermediate</i>				<i>42.25</i>	<i>306.13</i>	<i>13.81</i>
<i>Overall average - Advanced</i>				<i>30.88</i>	<i>300</i>	<i>10.25</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

up - unfilled pause

A high degree of agreement between my rating and this measure is seen in Table 5.2.b with, again, 6 of the 16 learners exhibiting a significant difference. Advanced learners produced fewer unfilled pause by a 3.56 pause margin. 6 advanced and 3 intermediate learners made fewer than the average number of unfilled pauses.

## Filled pauses per 100 syllables

**Table 5.2.c Filled pauses per 100 syllables**

Learner & Level	O Rank	C Rank	P/M	# of filled pauses	Syllables examined	# of fp per 100 syllables
S12 Int	9	1	8+	8	300	2.67
S7 Adv	3	2	1+	11	297	3.7
S6 Adv	1	3	2-	12	306	3.92
S1 Int	6	4	2+	14	309	4.53
S15 Adv	2	5	3-	16	296	5.4
S16 Adv	7	6	1+	17	306	5.56
S10 Adv	12	7	5+	17	291	5.84
S5 Int	14	8	6+	18	299	6.02
S2 Int	11	9	2+	24	310	7.74
S4 Int	16	10	6+	23	295	7.8
S17 Adv	5	11	6-	24	299	8.03
S14 Int	15	12	3+	25	303	8.25
S13 Int	10	13	3-	37	327	11.31
S11 Adv	8	14	6-	37	312	11.86
S3 Int	13	15	2-	53	306	17.32
S9 Adv	4	16	12-	52	293	17.75
<i>Average</i>				<i>24.25</i>	<i>303.06</i>	<i>7.98</i>
<i>Overall average - Intermediate</i>				<i>25.25</i>	<i>306.13</i>	<i>8.21</i>
<i>Overall average - Advanced</i>				<i>23.25</i>	<i>300</i>	<i>7.76</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

fp - filled pause

As can be seen in Table 5.2.c my rating and the evidence match fairly well with this measure; 7 of 16 learners show significant disagreement. The margin of difference is smaller than for unfilled pauses but the advanced group still produced 0.45 fewer filled pauses on average than the intermediate. 5 learners from each group generated fewer than the average number of filled pauses.

## Short filled pauses per 100 syllables

**Table 5.2.d Short filled pauses per 100 syllables**

Learner & Level	O Rank	C Rank	P/M	# of short filled pauses	Syllables examined	# of sfp per 100 syllables
S6 Adv	1	1	0=	0	306	0
S1 Int	6	1	5+	0	309	0
S4 Int	16	3	13+	1	295	0.34
S17 Adv	5	4	1+	2	299	0.67
S12 Int	9	5	4+	5	300	1.67
S13 Int	10	6	4+	6	327	1.83
S2 Int	11	7	4+	6	310	1.94
S9 Adv	4	8	4-	6	293	2.05
S14 Int	15	9	6+	8	303	2.64
S11 Adv	8	10	2-	10	312	3.21
S15 Adv	2	11	9-	10	296	3.38
S3 Int	13	12	1+	11	306	3.59
S5 Int	14	13	1+	12	299	4.01
S10 Adv	12	14	2-	13	291	4.47
S7 Adv	3	15	12-	15	297	5.05
S16 Adv	7	16	9-	21	306	6.86
<i>Average</i>				<i>7.88</i>	<i>303.6</i>	<i>2.61</i>
<i>Overall average - Intermediate</i>				<i>6.13</i>	<i>306.13</i>	<i>2</i>
<i>Overall average - Advanced</i>				<i>9.63</i>	<i>300</i>	<i>3.21</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

sfp - short filled pause

The examination of short filled pauses, shown in Table 5.2.d yielded very different results from the previously mentioned types of pause. In this category there was a fairly high degree of difference between my rating and the evidence; only 6 of 16 learners matched. A reversal is also apparent in fact that 5 intermediate and only 3 advanced learners produced fewer than the average number of short filled pauses.

### Average seconds of pause time per minute

**Table 5.2.e Average seconds of pause time per minute**

Learner & Level	O Rank	C Rank	P/M	Time of up	Time of fp	Time of Jp	Time of iv/la	Total time of pauses	Time holding floor	Seconds pause time per minute
S7 Adv	3	1	2+	14.31	6.66	0	0	20.97	122.55	10.27
S6 Adv	1	2	1-	10.83	8.66	0	1.61	21.1	118.42	10.69
S15 Adv	2	3	1-	5.18	11.83	0	2.49	19.5	97.06	12.05
S16 Adv	7	4	3+	7.17	7.99	7.6	0.64	23.4	116.35	12.07
S1 Int	6	5	1-	22.97	7.69	0	0	30.66	120.1	15.32
S10 Adv	12	6	6+	21.97	9.43	0	7.45	38.85	126.21	18.47
S12 Int	9	7	2+	23.89	4.56	1.32	11.12	40.89	128.45	19.1
S17 Adv	5	8	3-	17.55	15.05	1.47	8.23	42.3	132.21	19.2
S4 Int	16	9	7+	29.54	14.54	5.15	8.95	58.18	157.46	22.17
S3 Int	13	10	3+	20.77	32.49	1.52	2.04	56.82	143.35	23.78
S2 Int	11	11	0=	45.59	19.63	3.59	7.28	76.09	187.05	24.41
S13 Int	10	12	2-	32.44	34.08	2.7	0.89	70.11	171.3	24.56
S5 Int	14	13	1+	43.87	10.74	3.77	0	58.38	142.2	24.63
S9 Adv	4	14	10-	30.94	40.68	7.19	2.8	81.61	187.49	26.11
S14 Int	15	15	0=	68.57	15.75	3.47	2.02	89.81	204.5	26.35
S11 Adv	8	16	8-	66.4	26.57	9.87	0	102.84	215.65	28.61
<i>Average</i>				<i>28.87</i>	<i>16.65</i>	<i>2.98</i>	<i>3.47</i>	<i>51.97</i>	<i>148.15</i>	<i>19.86</i>
<i>Overall average - Intermediate</i>				<i>35.96</i>	<i>17.44</i>	<i>2.69</i>	<i>4.04</i>	<i>60.12</i>	<i>156.8</i>	<i>22.54</i>
<i>Overall average - Advanced</i>				<i>21.79</i>	<i>15.86</i>	<i>3.27</i>	<i>2.9</i>	<i>43.82</i>	<i>139.49</i>	<i>17.18</i>

O Rank - Overall pre-investigation rank      C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

up - unfilled pauses      fp - filled pauses

Jp - Japanese usage      iv - involuntary pause      la - laughter

Table 5.2.e shows a high degree of correspondence between my rating and this measure as only 4 learners exhibited considerable difference. Advanced learners performed better overall, pausing for an average of 5.36 seconds per minute less than the intermediate group. 6 advanced and 2 intermediates paused for less than the average amount of time.

## Seconds of unfilled pause time per minute

**Table 5.2.f Seconds of unfilled pause per minute**

Learner & Level	O Rank	C Rank	P/M	Time of unfilled pauses	Time holding floor	Seconds of up per minute
S15 Adv	2	1	1+	5.18	97.06	3.2
S16 Adv	7	2	5+	7.17	116.35	3.7
S6 Adv	1	3	2-	10.83	118.42	5.49
S7 Adv	3	4	1-	14.31	122.55	7.01
S17 Adv	5	5	0=	17.55	132.21	7.96
S3 Int	13	6	7+	20.77	143.35	8.69
S9 Adv	4	7	3-	30.94	187.49	9.9
S10 Adv	12	8	4+	21.97	126.21	10.44
S12 Int	9	9	0=	23.89	128.45	11.16
S4 Int	16	10	6+	29.54	157.46	11.26
S13 Int	10	11	1-	32.44	171.3	11.36
S1 Int	6	12	6-	22.97	120.1	11.48
S2 Int	11	13	2-	45.59	187.05	14.62
S11 Adv	8	14	6-	66.4	215.65	18.47
S5 Int	14	15	1-	43.87	142.2	18.51
S14 Int	15	16	1-	68.57	204.5	20.12
<i>Average</i>				<i>28.87</i>	<i>148.15</i>	<i>10.84</i>
<i>Overall average - Intermediate</i>				<i>35.96</i>	<i>156.8</i>	<i>13.4</i>
<i>Overall average - Advanced</i>				<i>21.79</i>	<i>139.49</i>	<i>8.27</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

up - unfilled pause

Table 5.2.f displays evidence of relatively close agreement between my rating and the measure of unfilled pause time per minute. Only 6 of 16 learners' ratings did not reasonably match. The advanced group paused silently for 5.13 seconds less overall, and 7 advanced learners were of above average performance. Only 1 intermediate learner produced unfilled pause for less than the average amount of speaking time.

## Seconds of filled pause time per minute

**Table 5.2.g Seconds of filled pause per minute**

Learner & Level	O Rank	C Rank	P/M	Time of filled pauses	Time holding floor	Seconds of fp per minute
S12 Int	9	1	8+	4.56	128.45	2.13
S7 Adv	3	2	1+	6.66	122.55	3.26
S1 Int	6	3	3+	7.69	120.1	3.84
S16 Adv	7	4	3+	7.99	116.35	4.12
S6 Adv	1	5	4-	8.66	118.42	4.39
S10 Adv	12	6	6+	9.43	126.21	4.48
S5 Int	14	7	7+	10.74	142.2	4.53
S14 Int	15	8	7+	15.75	204.5	4.62
S4 Int	16	9	7+	14.54	157.46	5.54
S2 Int	11	10	1+	19.63	187.05	6.3
S17 Adv	5	11	6-	15.05	132.21	6.83
S15 Adv	2	12	10-	11.83	97.06	7.31
S11 Adv	8	13	5-	26.57	215.65	7.39
S13 Int	10	14	4-	34.08	171.3	11.94
S9 Adv	4	15	11-	40.68	187.49	13.02
S3 Int	13	16	3-	32.49	143.35	13.6
<i>Average</i>				<i>16.65</i>	<i>148.15</i>	<i>6.46</i>
<i>Overall average - Intermediate</i>				<i>17.44</i>	<i>156.8</i>	<i>6.56</i>
<i>Overall average - Advanced</i>				<i>15.86</i>	<i>139.49</i>	<i>6.35</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

fp - filled pause

The results for average seconds of filled pause time per minute, shown in Table 5.2.g, show major disagreement with my rating. Only 5 of 16 learners came close to matching with the pre-investigation rating. The intermediate group was revealed to have produced 0.21 seconds more of filled pause than the advanced. 6 intermediate and 4 advanced learners added less than the average amount of filled pause time to their speech.

### 5.3 Average length of pause

#### Overall length of pause

**Table 5.3.a Overall length of pause**

Learner & Level	O Rank	C Rank	P/M	Total pause time	Total # of timed pauses*	Average length of pause
S7 Adv	3	1	2+	20.97	39	0.54
S6 Adv	1	2	1-	21.1	37	0.57
S16 Adv	7	3	4+	23.4	41	0.57
S3 Int	13	4	9+	56.82	93	0.61
S17 Adv	5	5	0=	42.3	61	0.69
S15 Adv	2	6	4-	19.5	27	0.72
S4 Int	16	7	9+	58.18	79	0.74
S1 Int	6	8	2-	30.66	41	0.75
S10 Adv	12	9	3+	38.85	51	0.76
S9 Adv	4	10	6-	81.61	104	0.78
S13 Int	10	11	1-	70.11	83	0.84
S2 Int	11	12	1-	76.09	91	0.84
S12 Int	9	13	4-	40.89	48	0.85
S11 Adv	8	14	6-	102.84	118	0.87
S5 Int	14	15	1-	58.38	63	0.93
S14 Int	15	16	1-	89.81	93	0.97
<i>Average</i>				<i>51.97</i>	<i>66.81</i>	<i>0.75</i>
<i>Overall average - Intermediate</i>				<i>60.12</i>	<i>73.88</i>	<i>0.82</i>
<i>Overall average - Advanced</i>				<i>43.82</i>	<i>59.75</i>	<i>0.69</i>

\*sfp not counted because they are not timed

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Table 5.3.a shows that the measure of overall average length of pause matches fairly well with my rating; 7 of 16 learners show significant difference. The advanced group performed better overall, with an average pause length 0.13 seconds shorter than the intermediate. 5 advanced learners and 3 intermediates had shorter than average pauses.



## Average length of unfilled pause

**Table 5.3.b Average length of unfilled pause**

Learner & Level	O Rank	C Rank	P/M	# of unfilled pauses	Time of unfilled pauses	Average length of unfilled pause
S6 Adv	1	1	0=	23	10.83	0.47
S16 Adv	7	2	5+	15	7.17	0.48
S7 Adv	3	3	0=	28	14.31	0.51
S15 Adv	2	4	2-	9	5.18	0.58
S3 Int	13	5	8+	35	20.77	0.59
S17 Adv	5	6	1-	28	17.55	0.63
S4 Int	16	7	9+	42	29.54	0.7
S9 Adv	4	7	3-	44	30.94	0.7
S10 Adv	12	9	3+	29	21.97	0.76
S12 Int	9	10	1-	31	23.89	0.77
S13 Int	10	10	0=	42	32.44	0.77
S2 Int	11	12	1-	57	45.59	0.8
S1 Int	6	13	7-	27	22.97	0.85
S11 Adv	8	14	6-	71	66.4	0.94
S5 Int	14	15	1-	42	43.87	1.04
S14 Int	15	16	1-	62	68.57	1.11
<i>Average</i>				<i>36.56</i>	<i>28.87</i>	<i>0.73</i>
<i>Overall average - Intermediate</i>				<i>42.25</i>	<i>35.96</i>	<i>0.83</i>
<i>Overall average - Advanced</i>				<i>30.88</i>	<i>21.79</i>	<i>0.63</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Significant correspondence is shown, in Table 5.3.b, between this measure and my rating, with only 5 learners displaying disagreement. Advanced learners were found to average 0.2 second shorter unfilled pauses than the intermediate, and 6 advanced learners produced shorter than average filled pauses compared to only 2 intermediate.

## Average length of filled pause

**Table 5.3.c - Average length of filled pause**

Learner & Level	O Rank	C Rank	P/M	# of filled pauses	Time of filled pauses	Average length of filled pause
S16 Adv	7	1	6+	17	7.99	0.47
S1 Int	6	2	4+	14	7.69	0.55
S10 Adv	12	2	10+	17	9.43	0.55
S12 Int	9	4	5+	8	4.56	0.57
S5 Int	14	5	9+	18	10.74	0.6
S3 Int	13	6	7+	53	32.49	0.61
S7 Adv	3	6	3-	11	6.66	0.61
S4 Int	16	8	8+	23	14.54	0.63
S14 Int	15	8	7+	25	15.75	0.63
S17 Adv	5	8	3-	24	15.05	0.63
S6 Adv	1	11	10-	12	8.66	0.72
S11 Adv	8	11	3-	37	26.57	0.72
S15 Adv	2	13	11-	16	11.83	0.74
S9 Adv	4	14	10-	52	40.68	0.78
S2 Int	11	15	4-	24	19.63	0.82
S13 Int	10	16	6-	37	34.08	0.92
<i>Average</i>				<i>24.25</i>	<i>16.65</i>	<i>0.66</i>
<i>Overall average - Intermediate</i>				<i>25.25</i>	<i>17.44</i>	<i>0.67</i>
<i>Overall average - Advanced</i>				<i>23.25</i>	<i>15.86</i>	<i>0.65</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Table 5.3.c shows an extreme mismatch between the pre-investigation fluency rating and the average length of filled pause. Only 3 of 16 learners' ratings for this category were in agreement with mine. The margin of difference on average between learner levels was small, with the intermediate group displaying filled pauses an average of 0.02 seconds shorter. 6 intermediate learners and 4 advanced had a shorter than average filled pause length.

## 5.4 Disfluencies

### Disfluencies per 100 syllables

**Table 5.4.a Disfluencies per 100 syllables**

Learner & Level	O Rank	C Rank	P/M	Total disfluencies minus in/iv/la	Syllables examined	Disfluencies per 100 syllables
S6 Adv	1	1	0=	36	306	11.76
S1 Int	6	2	4+	51	309	16.5
S15 Adv	2	3	1-	63	296	21.28
S12 Int	9	4	5+	68	300	22.67
S17 Adv	5	5	0=	73	299	24.41
S7 Adv	3	6	3-	86	297	28.96
S4 Int	16	7	9+	93	295	31.53
S10 Adv	12	8	4+	94	291	32.3
S16 Adv	7	9	2-	108	306	35.29
S13 Int	10	10	0=	118	327	36.09
S2 Int	11	11	0=	128	310	41.29
S5 Int	14	11	3+	128	299	42.81
S3 Int	13	13	0=	131	306	42.81
S14 Int	15	14	1+	137	303	48.84
S9 Adv	4	15	11-	148	293	50.51
S11 Adv	8	16	8-	174	312	55.77
<i>Average</i>				<i>102.25</i>	<i>303.06</i>	<i>33.93</i>
<i>Overall average - Intermediate</i>				<i>106.75</i>	<i>306.13</i>	<i>35.32</i>
<i>Overall average - Advanced</i>				<i>97.75</i>	<i>300</i>	<i>32.54</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

in - indecipherable    iv - involuntary    la - laughter

Table 5.4.a shows that only half of the pre-investigation learner fluency ratings, 8 of 16, match well with the frequency of disfluency found. The advanced group produced slightly fewer disfluencies on average than the intermediates, by a margin of 2.78 per 100 syllables. 5 advanced and 3 intermediate learners produced fewer than the average number of disfluencies.

## % of Disfluent syllables

**Table 5.4.b - Percentage of disfluent syllables**

Learner & Level	O Rank	C Rank	P/M	Fluent syllables	Disfluent syllables	% of Disfluent syllables
S6 Adv	1	1	0=	293	13	4.2
S1 Int	6	2	4+	274	35	11.3
S12 Int	9	3	6+	255	45	15
S17 Adv	5	4	1+	248	51	17.1
S4 Int	16	5	11+	237	58	19.7
S15 Adv	2	6	4-	233	63	21.3
S7 Adv	3	7	4-	221	76	25.6
S10 Adv	12	8	4+	216	75	25.8
S14 Int	15	9	6+	219	84	27.7
S2 Int	11	10	1+	219	91	29.4
S13 Int	10	11	1-	228	99	30.3
S3 Int	13	12	1+	201	105	34.3
S11 Adv	8	13	5-	201	111	35.6
S5 Int	14	14	0=	190	109	36.5
S16 Adv	7	15	8-	188	118	38.6
S9 Adv	4	16	12-	162	131	44.7
<i>Average</i>				<i>224.06</i>	<i>79</i>	<i>26.07</i>
<i>Overall average - Intermediate</i>				<i>227.88</i>	<i>78.25</i>	<i>25.53</i>
<i>Overall average - Advanced</i>				<i>220.25</i>	<i>79.75</i>	<i>26.61</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Even less agreement with the pre-investigation fluency rating than was found for frequency of disfluency, was found for the percentage of disfluent syllables. Table 5.4.b reveals that only 6 of 16 ratings showed significant agreement. In contrast to the previously discussed measure of disfluency, intermediate learners performed better here by a slight margin. The difference in average percentage of disfluent syllables favors the intermediate group by 1.08 percent. 5 advanced learners and 3 intermediate produced a smaller than average percentage of disfluent syllables.

## 5.5 Speech and Articulation Rates

### Speech rate for unpruned syllables

**Table 5.5.a Speech rate for unpruned syllables**

Learner & Level	O Rank	C Rank	P/M	Unpruned syllables	Time holding floor	Unpruned syllables per second	Unpruned syllables per minute
S15 Adv	2	1	+	296	97.06	3.05	182.98
S16 Adv	7	2	+	306	116.35	2.63	157.8
S6 Adv	1	3	-	306	118.42	2.58	155.04
S1 Int	6	4	+	309	120.1	2.57	154.37
S7 Adv	3	5	-	297	122.55	2.42	145.41
S12 Int	9	6	+	300	128.45	2.34	140.13
S10 Adv	12	7	+	291	126.21	2.31	138.34
S17 Adv	5	8	-	299	132.21	2.26	135.69
S3 Int	13	9	+	306	143.35	2.13	128.08
S5 Int	14	10	+	299	142.2	2.1	126.16
S13 Int	10	11	-	327	171.3	1.91	114.54
S4 Int	16	12	+	295	157.46	1.87	112.41
S2 Int	11	13	-	310	187.05	1.66	99.44
S9 Adv	4	14	-	293	187.49	1.56	93.77
S14 Int	15	15	=	303	204.5	1.5	89.9
S11 Adv	8	16	-	312	215.65	1.45	86.81
<i>Average</i>				<i>303.06</i>	<i>148.15</i>	<i>2.15</i>	<i>128.8</i>
<i>Overall average - Intermediate</i>				<i>306.13</i>	<i>156.8</i>	<i>2.01</i>	<i>120.63</i>
<i>Overall average - Advanced</i>				<i>300</i>	<i>139.49</i>	<i>2.28</i>	<i>136.98</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

The results on speech rate for unpruned syllables show, in Table 5.5.a, a fair degree of correspondence between the pre-investigation fluency rating and this measure. 9 of 16 ratings did not show significant difference. Advanced learners displayed a faster speech rate by an average margin of 16.35 syllables more per minute than the intermediate learners. 6 advanced and 2 intermediate learners had a faster than average speech rate.

## Speech rate for pruned syllables

**Table 5.5.b Speech rate for pruned syllables**

Learner & Level	O Rank	C Rank	P/M	Pruned syllables	Time holding floor	Pruned syllables per second	Pruned syllables per minute
S6 Adv	1	1	=	293	118.42	2.47	148.45
S15 Adv	2	2	=	233	97.06	2.4	144.03
S1 Int	6	3	+	274	120.1	2.28	136.89
S12 Int	9	4	+	255	128.45	1.99	119.11
S17 Adv	5	5	=	248	132.21	1.88	112.55
S7 Adv	3	6	-	221	122.55	1.8	108.2
S10 Adv	12	7	+	216	126.21	1.71	102.69
S16 Adv	7	8	-	188	116.35	1.62	96.95
S4 Int	16	9	+	237	157.46	1.51	90.31
S3 Int	13	10	+	201	143.35	1.4	84.13
S5 Int	14	11	+	190	142.2	1.34	80.17
S13 Int	10	12	-	228	171.3	1.33	79.86
S2 Int	11	13	-	219	187.05	1.17	70.25
S14 Int	15	14	+	219	204.5	1.07	64.25
S11 Adv	8	15	-	201	215.65	0.93	55.92
S9 Adv	4	16	-	162	187.49	0.86	51.84
<i>Average</i>				<i>224.06</i>	<i>148.15</i>	<i>1.61</i>	<i>96.6</i>
<i>Overall average - Intermediate</i>				<i>227.88</i>	<i>156.8</i>	<i>1.51</i>	<i>90.62</i>
<i>Overall average - Advanced</i>				<i>220.25</i>	<i>139.49</i>	<i>1.71</i>	<i>102.58</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Table 5.5.b shows results on speech rate for pruned syllables very similar to those for unpruned syllables. The agreement between the pre-investigation rating and the measure here is slightly higher, with only 5 of the 16 ratings in disagreement. Advanced learners still display a faster average speech rate than intermediates, though by a narrower 11.96 syllable per minute margin. The same 6 advanced and 2 intermediate learners as shown for unpruned syllables had a faster than average speech rate.

## Articulation rate for unpruned syllables

**Table 5.5.c - Articulation rate for unpruned syllables**

Learner & Level	O Rank	C Rank	P/M	Unpruned syllables	Speaking time minus pauses	Unpruned syllables per second minus pauses	Unpruned syllables per minute minus pauses
S15 Adv	2	1	+	296	77.56	3.82	228.98
S5 Int	14	2	+	299	83.82	3.57	214.03
S3 Int	13	3	+	306	86.53	3.54	212.18
S1 Int	6	4	+	309	89.44	3.45	207.29
S12 Int	9	5	+	300	87.56	3.43	205.57
S10 Adv	12	6	+	291	87.36	3.33	199.86
S17 Adv	5	7	-	299	89.91	3.33	199.53
S16 Adv	7	8	-	306	92.95	3.29	197.53
S13 Int	10	9	+	327	101.19	3.23	193.89
S6 Adv	1	10	-	306	97.32	3.14	188.66
S4 Int	16	11	+	295	99.28	2.97	178.28
S7 Adv	3	12	-	297	101.58	2.92	175.43
S2 Int	11	13	-	310	110.96	2.79	167.63
S11 Adv	8	14	-	312	112.81	2.77	165.94
S9 Adv	4	15	-	293	105.88	2.77	166.03
S14 Int	15	16	-	303	114.69	2.64	158.51
<i>Average</i>				<i>303.06</i>	<i>96.18</i>	<i>3.19</i>	<i>191.21</i>
<i>Overall average - Intermediate</i>				<i>306.13</i>	<i>96.68</i>	<i>3.2</i>	<i>192.17</i>
<i>Overall average - Advanced</i>				<i>300</i>	<i>95.67</i>	<i>3.17</i>	<i>190.25</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Table 5.5.c shows significant difference between articulation rate for unpruned syllables and the pre-investigation fluency rating, with only 7 of 16 ratings showing agreement. Generally the intermediate students performed better in this category, but overall only by 1.92 syllables per second. 5 intermediate and 4 advanced learners produced an above average number of syllables per minute.

## Articulation rate for pruned syllables

**Table 5.5.d Articulation rate for pruned syllables**

Learner & Level	O Rank	C Rank	P/M	Pruned syllables	Speaking time minus pauses	Pruned syllables per second minus pauses	Pruned syllables per minute minus pauses
S1 Int	6	1	+	274	89.44	3.06	183.81
S6 Adv	1	2	-	293	97.32	3.01	180.64
S15 Adv	2	3	-	233	77.56	3	180.25
S12 Int	9	4	+	255	87.56	2.91	174.74
S17 Adv	5	5	=	248	89.91	2.76	165.5
S10 Adv	12	6	+	216	87.36	2.47	148.35
S4 Int	16	7	+	237	99.28	2.39	143.23
S3 Int	13	8	+	201	86.53	2.32	139.37
S5 Int	14	9	+	190	83.82	2.27	136.01
S13 Int	10	10	=	228	101.19	2.25	135.19
S7 Adv	3	11	-	221	101.58	2.18	130.54
S16 Adv	7	12	-	188	92.95	2.02	121.36
S2 Int	11	13	-	219	110.96	1.97	118.42
S14 Int	15	14	+	219	114.69	1.91	114.57
S11 Adv	8	15	-	201	112.81	1.78	106.91
S9 Adv	4	16	-	162	105.88	1.53	91.8
<i>Average</i>				<i>224.06</i>	<i>96.01</i>	<i>2.36</i>	<i>141.92</i>
<i>Overall average - Intermediate</i>				<i>227.86</i>	<i>96.86</i>	<i>2.39</i>	<i>143.17</i>
<i>Overall average - Advanced</i>				<i>220.25</i>	<i>95.67</i>	<i>2.34</i>	<i>140.67</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

As Table 5.5.d shows, there is even less agreement between the pre-investigation rating and the measure of articulation rate for pruned syllables than for unpruned syllables. Here only 5 of the 16 ratings show significant agreement. Again the intermediate group performed better, and by a slightly larger margin than with unpruned syllables; 2.5 syllables per minute. 4 advanced and 3 intermediate learners produced an above average number of syllables per second.



## 5.6 Mean length of run

### Mean length of runs between pauses

**Table 5.6.a Mean length of runs between pauses**

Learner & Level	O Rank	C Rank	P/M	Syllables minus filled pauses	Runs between pauses of 0.3 seconds or more	Mean length of runs
S16 Adv	7	1	6+	287	38	7.55
S6 Adv	1	2	1-	294	43	6.84
S15 Adv	2	3	1-	281	43	6.53
S7 Adv	3	4	1-	281	45	6.24
S12 Int	9	5	4+	292	63	4.63
S1 Int	6	6	0=	294	66	4.45
S3 Int	13	7	6+	257	59	4.36
S10 Adv	12	8	4+	276	66	4.18
S5 Int	14	9	5+	278	67	4.15
S17 Adv	5	10	5-	278	71	3.92
S13 Int	10	11	1-	282	75	3.76
S2 Int	11	12	1-	285	83	3.43
S4 Int	16	13	3+	270	81	3.33
S9 Adv	4	14	10-	239	73	3.27
S11 Adv	8	15	7-	276	94	2.94
S14 Int	15	16	1-	280	98	2.86
<i>Average</i>				<i>278.13</i>	<i>66.56</i>	<i>4.53</i>
<i>Overall average - Intermediate</i>				<i>279.75</i>	<i>74</i>	<i>3.87</i>
<i>Overall average - Advanced</i>				<i>276.5</i>	<i>59.13</i>	<i>5.18</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Table 5.6.a shows that the pre-investigation rating did not match particularly well with the measure of mean length of runs between pauses. Of the 16 ratings only 7 did not display significant difference. Advanced learners averaged longer runs than intermediates by a margin of 1.31 syllables per run. Only 5 learners, 4 advanced and 1 intermediate, produced longer than average runs.

## Mean length of run between disfluencies

**Table 5.6.b Mean length of runs between disfluencies**

Learner & Level	O Rank	C Rank	P/M	Pruned syllables	Runs between disfluency	Mean length of runs without disfluency
S6 Adv	1	1	0=	293	49	5.98
S7 Adv	3	2	1+	221	49	4.51
S1 Int	6	3	3+	274	67	4.09
S12 Int	9	4	5+	255	65	3.92
S15 Adv	2	5	3-	233	60	3.88
S13 Int	10	6	4+	228	63	3.62
S3 Int	13	7	6+	201	56	3.59
S16 Adv	7	8	1-	188	55	3.42
S17 Adv	5	9	4-	248	74	3.35
S4 Int	16	10	6+	237	71	3.34
S2 Int	11	11	0=	219	67	3.27
S10 Adv	12	12	0=	216	72	3
S5 Int	14	13	1+	190	65	2.92
S9 Adv	4	14	10-	162	61	2.66
S14 Int	15	15	0=	219	83	2.64
S11 Adv	8	16	8-	201	79	2.54
<i>Average</i>				<i>224.06</i>	<i>64.75</i>	<i>3.56</i>
<i>Overall average - Intermediate</i>				<i>227.86</i>	<i>67.13</i>	<i>3.42</i>
<i>Overall average - Advanced</i>				<i>220.25</i>	<i>62.38</i>	<i>3.67</i>

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

Table 5.6.b reveals that the pre-investigation fluency ratings were a fair match with the ratings for mean length of runs between disfluencies, with 9 of 16 showing agreement. The advanced learners performed better than the intermediate as they did with mean length of run between pauses, but by a smaller margin of only 0.24 syllables per run. 4 intermediate and 3 advanced learners produced longer than average runs.

## **6. POST-INVESTIGATION ASSESSMENT**

### **6.1 Creation of post-investigation fluency ranking**

In order to facilitate the discussion of the results found in this study a post-investigation fluency assessment was prepared (see Appendices 1A and 1B for detailed charts of this information). Upon completion of the fluency measures, results in 11 categories were assessed and statistical information compiled to bring into focus the salient differences between my initial rating of the learners' fluency and what the objective evidence reveals. Due to the large number of measures applied to pause phenomena, only the results concerning overall pauses were included. This meant that 3 categories related to pauses, and 2 each to disfluencies, speech rate, articulation rate, and mean length of run were used.

The category ranks (C Rank) for each of the 11 categories were first tallied and averaged. The averages were then ordered to give an overall fluency rank for each learner based on their cumulative performance on the fluency measures. Table 6.1 below shows the new rank. For the purpose of bringing more learners into the discussion, the degree of difference that will be considered significant is 3 or more ranks above or below the pre-investigation ranking.

**Table 6.1 - Post-investigation rank**

Learner & Level	O Rank	C Rank	P/M	Average rank in main categories
S6 Adv	1	1	0=	2.36
S15 Adv	2	2	0=	3.18
S1 Int	6	3	3+	3.73
S12 Int	9	4	5+	5.36
S7 Adv	3	5	2-	5.46
S17 Adv	5	6	1-	6.64
S16 Adv	7	7	0=	6.82
S10 Adv	12	8	4+	7.73
S3 Int	13	9	4+	8.82
S4 Int	16	10	6+	9.09
S13 Int	10	11	1-	10.36
S5 Int	14	12	2+	10.55
S2 Int	11	13	2-	11.91
S14 Int	15	14	1+	14.27
S9 Adv	4	15	11-	14.45
S11 Adv	8	16	8-	15.09

O Rank - Overall pre-investigation rank    C Rank - Rank for this category

P/M (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

The statistical information included notation of the total counts of all the above and below (P/M) numbers marking the difference between the fluency measure ranks and the pre-investigation ranking. The sum of those ranking differences was also calculated to come up with a plus or minus cumulative total of difference for each learner. These numbers were useful in highlighting the learners whose fluency measure ranks differed greatly from the anticipated result and will be mentioned in regard to specific learners later in this section. The number of categories where learners performed above or below average levels were also noted and will be used highlight the discussion.

## **6.2 Underestimated and overestimated learners**

The application of the measures used in this evaluation of the fluency of my learners has

brought attention to some differences between my initial subjective assessments and what the objective evidence shows. The following section will highlight the most obvious of these differences and offer some possible explanation as to why the assessments don't match up.

For the majority of the learners examined in this study, my initial fluency rating is a fairly close match to the post-investigation ranking. A change in rank of two places up or down is not felt to be significant and 9 of the 16 learners examined fell within that range. That leaves 7 of the learners whose post-investigation assessment differed to a large degree from the pre-investigation. These learners will be considered below in two categories: underestimated learners and overestimated learners.

#### **6.2.1 Underestimated Learners**

5 of the 16 learners performed much better than my initial assessment led me to believe they would. Reasons why this may be the case are detailed below, starting with the most dramatic difference.

##### **S4 Intermediate – Up 6 Ranks**

The most dramatic climb up the rankings came from S4Int. Initially assessed as the least fluent student, S4Int moved from 16<sup>th</sup> to 10<sup>th</sup> place based on the evidence gathered. This learner's plus/minus (P/M) on the 11 categories was 76+, the highest positive total in the study. S4Int was only above average in 4 categories but that was the third highest total among the intermediate level learners. This learner also surpassed my fluency ranking in all categories.

This improved assessment can mostly be linked to S4Int's above average performance in regard to disfluencies, ranking 5<sup>th</sup> overall in percentage of disfluent syllables and 7<sup>th</sup> in disfluencies per 100 syllables. The results for S4Int seem to indicate that I am not affected by the low number of disfluencies when making my fluency judgement, perhaps indicating that I have difficulty ignoring other aspects of spoken competence. I am not convinced that an investigation of S4Int's accuracy or vocabulary range would yield such a positive result, which may have influenced my initial assessment. S4Int tends to be quite ungrammatical and error prone in speaking in most lessons. On the basis of fluent production alone, however, this learner exceeds expectations.

### **S12 Intermediate – Up 5 Ranks**

The next largest rise in ranking came from S12Int, who was initially assessed in 9<sup>th</sup> place and moved up to 4<sup>th</sup>. The most impressive feature of this learner's post-investigation assessment is above average performance in 10 of the 11 fluency categories. In all of the same categories, my fluency ranking was surpassed. S12Int also had a 40+ P/M, 4<sup>th</sup> best overall.

On the basis of this performance, I would recommend a change of level for this learner. My initial assessment here was again likely clouded by other factors, among them the level of the other learners in S12Int's class, perceived difficulties with S12Int's listening ability, and a rather self-conscious nature. On many occasions when not understood on first hearing of some spoken production, S12Int will change the subject as if regretful of introducing it.

### **S3 Intermediate – Up 4 Ranks**

S3Int, initially ranked 13<sup>th</sup>, also showed significant improvement over the initial assessment, moving up 4 ranks to 9<sup>th</sup> place. This learner had the 3<sup>rd</sup> highest P/M at 46+ and surpassed my fluency ranking on 9 measures. S3Int, however, was only above average on 3 categories.

Though exhibiting a high number of disfluencies and frequent pauses, strong performance in articulation rate and mean length of runs was enough to boost the overall ranking for S3Int. My initial assessment here was likely strongly influenced by the disfluency and pausing aspects of S3Int's speech. This learner tends to hesitate and backtrack, often repeating long stretches of speech.

### **S10 Advanced – Up 4 Ranks**

S10Adv's rise in ranking, from 12<sup>th</sup> to 8<sup>th</sup> can be attributed to above average performance in 8 of the 11 categories. This learner showed the second highest P/M at 47+ and surpassed my ranking in 10 of 11 categories.

My initial assessment of this learner is likely related to the amount of speech produced by S10Adv in a typical lesson. S10Adv is usually the least talkative in the class and very nearly didn't make the cutoff of required number of syllables for this investigation (see section 3.2.2).

### **S1 Intermediate – Up 3 Ranks**

S1Int outperformed even the high initial assessment moving from 6<sup>th</sup> to 3<sup>rd</sup> place. This performance was the result of above average performance in 10 of the 11 categories, a fairly high P/M of 25+. S1Int surpassed my fluency rating in 9 categories.

S1Int is a learner that I believe is in the wrong level for their ability, so I had ranked this learner as the highest of the intermediate students, higher in fact than three of the advanced learners. My slight underestimation is likely due to the fact that S1Int is considerably younger than most other learners and therefore has a tendency to defer to them in the classroom.

### **6.2.2 Overestimated Learners**

Two learners were easily identified as performing below the expectations set by my initial assessment as they ranked close to the bottom of nearly every category assessed in this investigation. Based on these results, I would recommend that these learners be considered of intermediate rather than advanced fluency level.

### **S9 Advanced – Down 11 Ranks**

S9Adv fell 11 ranks (4<sup>th</sup> to 15<sup>th</sup>), representing the greatest disagreement between my initial assessment and the final ranking. This learner had a P/M of 115-, due to ranking falling below the expectation of my ranking for all of the categories. S9Adv was below average for every fluency measure, averaging a rank of 14.5.

There is a possibility in regard to S9Adv that part of the reason for these results was the



topic introduced by this learner. Unfamiliarity with difficult vocabulary may have led to some of the slowness in delivery, though in retrospect it seems my initial assessment was influenced by other factors. S9Adv tends to be the first speaker in every lesson and exhibits, in my opinion, a deeper knowledge of grammar and vocabulary than other learners in the class. Despite these strengths, or perhaps because of them, S9Adv tends to speak rather carefully and pays great attention to accuracy. This may explain the large amount of disfluency exhibited in S9Adv's sample. By focusing too closely on getting it right, S9Adv's message is filled with pauses. S9Adv also made the highest number of self-corrections.

### **S11 Advanced – Down 8 Ranks**

S11Adv fell 8 ranks from (8<sup>th</sup> to 16<sup>th</sup>) and exhibits the same traits as S9Adv across the range of fluency measures employed in this study. The only difference is a P/M of 78-, which seems only to be better than S9Adv's because there was lower number of rankings to drop.

That S11Adv's initial ranking was several places below S9's perhaps reflects my opinion that S11Adv's grammar and vocabulary are not as strong. As seems to be the case with S9Adv, this learner seems to be overly concerned with accuracy and as a result tends to spend a lot of time searching for the proper way to express ideas. This tendency naturally leads to more pauses and other disfluencies related to getting the message right. My initial overestimation of S11Adv is likely related to the large amount of speech produced in average lessons, and less on the actual fluency of that speech.

### **6.3 Comparison of advanced and intermediate learners**

The following section will discuss some of the differences between my advanced and intermediate learners' performance on the fluency measures applied in this investigation. The purpose is to identify which measures may be especially helpful in measuring the fluency of my learners in the future. If the learners designated as advanced show a large proportion of learners with above average performance in a measure and/or great enough degree of difference is shown between the advanced and intermediate groups as a whole, then the measure may be considered useful for these learners.

In general, the advanced learners performed better overall in most categories though the differences were found to be slight for a number of fluency measures. It is important to note however, that if the learners who seem to be in the wrong proficiency level as described above were placed where I feel the evidence shows they belong, the fluency gap between advanced and intermediate would likely be greater. This will not be taken into consideration in the following assessment as it is felt it would skew the results. The advanced and intermediate groups will be considered as they were assigned at their EFL school when this study was conducted.

#### **6.3.1 Pauses**

##### **6.3.1.1 Number of pauses per 100 syllables**

Overall, intermediate learners were shown to pause more often, which was expected, but results for frequency of different pause types point to some interesting differences between advanced and intermediate learners. The difference in number of filled pauses, for example, reveals little since the results are close. The results for unfilled

pauses, on the other hand, show that intermediate learners produce a considerably higher number than advanced students. This perhaps shows that intermediate learners are speaking more carefully or have real or imagined gaps in their knowledge that are slowing them down. In contrast to the number of unfilled pauses, advanced learners use more short filled pauses than intermediates. This could be a reflection of their speech rate, with the speed causing the need for these short filled pauses to help them catch up with their thoughts. Based on these observations, measures of the numbers of pauses show promise for fluency assessment.

#### **6.3.1.2 Average seconds of pause time per minute**

Results for this category fall into the expected range with the intermediate learners pausing for more than 5 seconds longer per minute than the advanced. Unfilled pauses were again the reason for the difference as the filled pause time showed little difference between proficiency levels. The distribution of above and below average learners was clearly supportive of the measure for identifying advanced and intermediate learners in the case of unfilled pauses but quite the opposite for filled pauses.

#### **6.3.1.3 Average length of pause**

Again the expected overall result was found and for the same reasons. Unexpected results were revealed in regard to the length of filled pauses, however. In this category, although the advanced learners overall had a slight advantage, 4 of the 6 learners who had longer than average length of filled pause were from the advanced group. I suspect that cause of this is the advanced learners using their filled pauses for the purpose of indicating that they wish to continue speaking. Intermediate learners have a

tendency to fall silent instead of buying time with a filled pause.

### **6.3.2 Disfluencies**

#### **6.3.2.1 Percentage of Disfluent Syllables**

This fluency measure yielded an unexpected result in that the advanced learners were found to have produced a slightly higher percentage of disfluent syllables than the intermediates. This can be attributed, however, to the rather large percentage of disfluency in the performances of three advanced learners (S9Adv, S11Adv, and S16Adv). One possible cause of this difference for S16Adv could be a high speech rate, supporting claims by Shriberg (1994: 145) that faster speakers get ahead of themselves and therefore have more need of repair in their speech. The attention to accuracy mentioned in section 6.2.2 is likely the cause for S9Adv and S11Adv. Percentage of disfluent syllables has not been shown to be a clear measure of fluency for these learners.

#### **6.3.2.2 Number of Disfluencies per 100 Syllables**

The intermediate learners produced a few more disfluencies per 100 syllables, but this is mostly due to pauses being included in the disfluency counts. While intermediate learners do have a tendency toward more frequent pausing, examination of the results for restarts and self-corrections shows that intermediate learners actually produce fewer of those types of disfluencies. Closer investigation of specific disfluency types may reveal clear differences in the fluency of advanced and intermediate learners but, as a general measure inclusive of all disfluencies, the results are inconclusive.

### **6.3.3 Speech rate**

The findings for speech rate follow the predicted outcome based on the relationship of speech rate to pauses mentioned in Chapter 2. On both speech rate for unpruned syllables and speech rate for pruned syllables there is a clear advantage for the advanced learners. Speech rate, as has been previously established in this paper, has long been considered a useful measure of fluency and these results conform to that finding.

### **6.3.4 Articulation rate**

The results for articulation rate are much less clear than they are for speech rate, enforcing the idea that pause has a much closer relation to speech rate than the rate at which words are produced without the inclusion of pauses. The margin of difference is close enough and the mixture of above and below average learners from each level even enough to declare that articulation rate by itself is not a particularly useful measure for these learners.

### **6.3.5 Mean length of run**

Though a large margin of difference can be found in favor of the advanced learners in the mean length of run between pauses, the gap is much smaller when the runs are placed between disfluencies. The comparatively very long runs between pauses shown by the top four advanced learners lead to the conclusion that mean length of runs between pause may be suitable fluency measure for this group. The results for mean length of runs between disfluencies are less decisive however, and require further investigation before a judgment can be made.

## **7. CONCLUSION**

The purpose of the preceding study was to prepare an intuitive ranking of my learners' oral fluency and, using transcripts of their recorded speech to gather evidence on various fluency measures, compare my intuition to empirical evidence. Given the close agreement of my pre-investigation fluency ranking to the post-investigation re-ranking seen in Table 6.1 for 9 of my 16 learners it seems reasonable to suggest that, for the most part, my perception of fluency is based on the standard measures described in Chapter 2 of this paper. The 7 learners who fell outside the expected range in my ranking likely did so because of other factors. This leads me to believe that it is perhaps difficult for teachers to assess the fluency of their learners in the way this study attempted to do.

Previous studies that have analyzed global fluency judgments compared to objective measures have done so with a degree of anonymity I do not, and can not, have with my regular learners. Personal biases on personality, past performance, or habits in the classroom will always enter into the equation. I see my learners on a weekly basis for years at a time and my repeated contact makes impartial assessment of fluency a near impossibility. A more successful approach to analyzing my learners' fluency would be to have specific categories to judge before the objective investigation. If I had tried to pre-rank the learners on the categories actually used for the analysis rather than just as a general measure, the result would likely have been more satisfying.

Another possible problem arose with the ranking system of the project. The pre-investigation fluency rating done on a scale from most fluent to least fluent in an attempt to order learners from 1 to 16 proved to be unrealistic. It would have been better to use a scale from 1 to 5 and assign multiple learners to levels of perceived fluency and compare like with like. The 1 to 16 scale likely was partly responsible for the wide range of differences encountered between my pre-investigation ranking and the rankings for the categories analyzed.

What this study did do successfully is draw my attention to how fluently my learners actually produce language in my classroom. The results of this study could inspire a number of future projects, both new and, particularly of interest, revisions and variations on what was presented here. I would like to rework the study with a proper leveling of learners as well as a revised ranking scale. By adding an objective element and assessment by other rankers, I could perhaps reduce the bias my ranking obviously shows.

## Appendix 1A - Rating Assessment for Intermediate Learners

Student/Level/My ranking

	S1 I 6					S2 I 11					S3 I 13					S4 I 16				
	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl
Speech Rate																				
unpruned syll/sec	4	+	2	0	2.57	13	-	0	2	1.66	9	+	4	0	2.13	12	+	4	0	1.87
pruned syll/sec	3	+	3	0	2.28	13	-	0	2	1.17	10	+	3	0	1.4	9	+	7	0	1.51
Articulation Rate																				
unpruned syll/sec (- pauses)	4	+	2	0	3.45	13	-	0	2	2.79	3	+	10	0	3.54	11	+	5	0	2.97
pruned syll/sec (- pauses)	1	+	5	0	3.06	13	-	0	2	1.97	8	+	5	0	2.32	7	+	9	0	2.39
Mean Length of Runs																				
between pauses	6	=	0	0	4.45	12	-	0	1	3.43	7	+	6	0	4.36	13	+	3	0	3.33
between disfluencies	3	+	3	0	4.09	11	=	0	0	3.27	7	+	6	0	3.59	10	+	6	0	3.34
Disfluencies																				
% of disflu syll	2	+	4	0	11.3	10	+	1	0	29.4	12	+	1	0	34.3	5	+	11	0	19.7
disflu/100 syll	2	+	4	0	16.5	11	=	0	0	41.29	13	=	0	0	42.81	7	+	9	0	31.53
Overall Pauses																				
total # of pauses/100 syll	3	+	3	0	13.27	12	-	0	1	31.29	14	-	0	1	33.99	10	+	6	0	27.12
time of pauses/min	5	+	1	0	15.32	11	=	0	0	24.41	10	+	3	0	23.78	9	+	7	0	22.17
avg length of pause	8	-	0	2	0.75	12	-	0	1	0.84	4	+	9	0	0.61	7	+	9	0	0.74
Average rank	3.73					11.91					8.82					9.09				
Ranks above my rank	9+					1+					9+					11+				
Ranks below my rank	1-					7-					1-					0-				
Ranks equal to my rank	1=					3=					1=					0=				
Total ranks above	27+					1+					47+					76+				
Total ranks below	2-					11-					1-					0-				
Difference in ranks	25+					10-					46+					76+				
Above average	10 ab					0 ab					3 ab					4 ab				
Below average	1 bl					11 bl					8 bl					7 bl				

Student/Level/My ranking

	S5 I 14					S12 I 9					S13 I 10					S14 I 15				
	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl
Speech Rate																				
unpruned syll/sec	10	+	4	0	2.1	6	+	3	0	2.34	11	-	0	1	1.91	15	=	0	0	1.5
pruned syll/sec	11	+	3	0	1.34	4	+	5	0	1.99	12	-	0	2	1.33	14	+	1	0	1.07
Articulation Rate																				
unpruned syll/sec (- pauses)	2	+	12	0	3.57	5	+	4	0	3.43	9	+	1	0	3.23	16	-	0	1	2.64
pruned syll/sec (- pauses)	9	+	5	0	2.27	4	+	5	0	2.91	10	=	0	0	2.25	14	+	1	0	1.91
Mean Length of Runs																				
between pauses	9	+	5	0	4.15	5	+	4	0	4.63	11	-	0	1	3.76	16	-	0	1	2.86
between disfluencies	13	+	1	0	2.92	4	+	5	0	3.92	6	+	4	0	3.62	15	=	0	0	2.64
Disfluencies																				
% of disflu syll	14	=	0	0	36.5	3	+	6	0	15	11	-	0	1	30.3	9	+	6	0	27.7
disflu/100 syll	11	+	3	0	42.81	4	+	5	0	22.67	10	=	0	0	36.09	14	+	1	0	48.84
Overall Pauses																				
total # of pauses/100 syll	9	+	5	0	25.08	4	+	5	0	17.67	11	-	0	1	27.21	13	+	2	0	33.33
time of pauses/min	13	+	1	0	24.63	7	+	2	0	19.1	12	-	0	2	24.56	15	=	0	0	26.35
avg length of pause	15	-	0	1	0.93	13	-	0	4	0.85	11	-	0	1	0.84	16	-	0	1	0.97
Average rank	10.55					5.36					10.36					14.27				
Ranks above my rank	9+					10+					2+					5+				
Ranks below my rank	1-					1-					7-					3-				
Ranks equal to my rank	1=					0=					2=					3=				
Total ranks above	39+					44+					5+					11+				
Total ranks below	1-					4-					9-					3-				
Difference in ranks	38+					40+					4-					8+				
Above average	1 ab					10 ab					2 ab					0 ab				
Below average	10 bl					1 bl					9 bl					11 bl				

Key to Appendix

**C Rank** - Rank for this category      **P/M** (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

**[+]** - number of ranks above pre-investigation rank      **[-]** - number of ranks below pre-investigation rank

**ab/bl** - above or below average for this category        - above average        - below average



## Appendix 1B - Rating Assessment for Advanced Learners

Student/Level/My ranking

	S6 A 1					S7 A 3					S9 A 4					S10 A 12				
	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl
Speech Rate																				
unpruned syll/sec	3	-	0	2	2.58	5	-	0	2	2.42	14	-	0	10	1.56	7	+	5	0	2.31
pruned syll/sec	1	=	0	0	2.47	6	-	0	3	1.8	16	-	0	12	0.86	7	+	5	0	1.71
Articulation Rate																				
unpruned syll/sec (- pauses)	10	-	0	9	3.14	12	-	0	9	2.92	15	-	0	11	2.77	6	+	6	0	3.33
pruned syll/sec (- pauses)	2	-	0	1	3.01	11	-	0	8	2.18	16	-	0	12	1.53	6	+	6	0	2.47
Mean Length of Runs																				
between pauses	2	-	0	1	6.84	4	-	0	1	6.24	14	-	0	10	3.27	8	+	4	0	4.18
between disfluencies	1	=	0	0	5.98	2	+	1	0	4.51	14	-	0	10	2.66	12	=	0	0	3
Disfluencies																				
% of disflu syll	1	=	0	0	4.2	7	-	0	4	25.6	16	-	0	12	44.7	8	+	4	0	25.8
disflu/100 syll	1	=	0	0	11.76	6	-	0	3	28.96	15	-	0	11	50.51	8	+	4	0	32.3
Overall Pauses																				
total # of pauses/100 syll	1	=	0	0	12.09	5	-	0	2	18.18	15	-	0	11	37.54	8	+	4	0	21.99
time of pauses/min	2	-	0	1	10.69	1	+	2	0	10.27	14	-	0	10	26.11	6	+	6	0	18.47
avg length of pause	2	-	0	1	0.57	1	+	2	0	0.54	10	-	0	6	0.78	9	+	3	0	0.76
Average rank	2.36					5.46					14.45					7.73				
Ranks above my rank	0+					3+					0+					10+				
Ranks below my rank	6-					8-					11-					0-				
Ranks equal to my rank	5=					0=					0=					1=				
Total ranks above	0+					5+					0+					47+				
Total ranks below	15-					32-					115-					0-				
Difference in ranks	15-					27-					115-					47+				
Above average	10 ab					9 ab					0 ab					8 ab				
Below average	1 bl					2 bl					11 bl					3 bl				

Student/Level/My ranking

	S11 A 8					S15 A 2					S16 A 7					S17 A 5				
	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl	C Rank	P/M	[+]	[-]	ab / bl
Speech Rate																				
unpruned syll/sec	16	-	0	8	1.45	1	+	1	0	3.05	2	+	5	0	2.63	8	-	0	3	2.26
pruned syll/sec	15	-	0	7	0.93	2	=	0	0	2.4	8	-	0	1	1.62	5	=	0	0	1.88
Articulation Rate																				
unpruned syll/sec (- pauses)	14	-	0	6	2.77	1	+	1	0	3.82	7	=	0	0	3.29	7	-	0	2	3.33
pruned syll/sec (- pauses)	15	-	0	7	1.78	3	-	0	1	3	12	-	0	5	2.02	5	=	0	0	2.76
Mean Length of Runs																				
between pauses	15	-	0	7	2.94	3	-	0	1	6.53	1	+	6	0	7.55	10	-	0	5	3.92
between disfluencies	16	-	0	8	2.54	5	-	0	3	3.88	8	-	0	1	3.42	9	-	0	4	3.35
Disfluencies																				
% of disflu syll	13	-	0	5	35.6	6	-	0	4	21.3	15	-	0	8	38.6	4	+	1	0	17.1
disflu/100 syll	16	-	0	8	55.77	3	-	0	1	21.28	9	-	0	2	35.29	5	=	0	0	24.41
Overall Pauses																				
total # of pauses/100 syll	16	-	0	8	41.03	2	=	0	0	12.5	6	+	1	0	20.26	7	-	2	0	21.07
time of pauses/min	16	-	0	8	28.61	3	-	0	1	12.05	4	+	3	0	12.07	8	-	3	0	19.2
avg length of pause	14	-	0	6	0.87	6	-	0	4	0.72	3	+	4	0	0.57	5	=	0	0	0.69
Average rank	15.09					3.18					6.82					6.64				
Ranks above my rank	0+					2+					5+					1+				
Ranks below my rank	11-					7-					5-					6-				
Ranks equal to my rank	0=					2=					1=					4=				
Total ranks above	0+					2+					19+					6+				
Total ranks below	78-					15-					17-					14-				
Difference in ranks	78-					13-					2+					8-				
Above average	0 ab					11 ab					7 ab					9 ab				
Below average	11 bl					0 bl					4 bl					2 bl				

Key to Appendix

**C Rank** - Rank for this category      **P/M** (Plus/Minus) - Rank equal to (=), above (+), or below (-) pre-investigation rank

**[+]** - number of ranks above pre-investigation rank      **[-]** - number of ranks below pre-investigation rank

**ab/bl** - above or below average for this category        - above average        - below average

## Appendix 2 - Transcriptions of Learner Speech

Learner turns (disfluencies in red)	Culled disfluencies	Pruned syllables
<S1> I had <f=0.31> uh many tourn tennis	<f=0.31> uh tourn	fp rs I had many tennis tournaments
last week. <u=0.52> And <u=0.73> <f=0.88>	<u=0.52>	up last week. And I had a big tournament
<S1> uh I had a <u=1.85> big tournament <u=0.63>	<u=0.63>	up among the Kagoshima city
	<u=0.73>	up
	<f=0.88> uh	fp
	<u=1.85>	up
	<u=0.63>	up
<S1> For <u=1.14> <f=0.38> uh two days.	<u=1.14>	up For two days.
	<f=0.38> uh	fp
<S1> Yeah. But <f=0.39> um <u=1.45> it was on	<f=0.39> um	fp Yeah. But it was on Tuesday and Wednesday
Tuesday and Wednesday		
	<u=1.45>	up
<S1> But on Wednesday it <u=0.60> rained.	<u=0.60>	up But on Wednesday it rained.
<S1> So	-	- So
<S1> Yeah.   And very cold.	-	- Yeah. And very cold.
<S1> But in the tennis tournament we have to wait	-	- But in the tennis tournament we have to wait
until eleven o'clock.		until eleven o'clock.
<S1> <f=0.82> um <u=0.97> it's   not	<f=0.82> um <u=0.97> <indecipherable>	fp up in it's not
Yeah. But <f=0.40> um at that time we had to		
<S1> wait for until <u=0.88> one. <u=1.03> After	<f=0.40> um	fp Yeah. But at that time we had to wait for until
afternoon.		one. Afternoon.
	<u=0.88>	up
	<u=1.03>	up
	After	rs
<S1> One o'clock in the afternoon.	-	- One o'clock in the afternoon.
And <u=1.53> the tennis court is near here		
<S1> <u=0.53> in Kamoike <u=1.42> <f=0.59> uh	<u=1.53>	up And the tennis court is near here in Kamoike.
Do you know the place?		Do you know the place?
	<u=0.53>	up
	<u=1.42>	up
	<f=0.59> uh	fp
<S1>   Yup.	-	- Yup.
<S1> And there has no place to <u=0.69> sh	to sh	sc And there has no place to hide.
<f=0.41> uh to hide.		
	<u=0.69>	up
	<f=0.41> uh	fp
<S1> Shade?	Shade?	as -
<S1> Take shelter.   Yeah.	Take shelter.	tr Yeah.
<S1> So, it was very <f=0.63> um <u=1.29> How	<f=0.63> um	fp So it was very bad time.
can I say? <u=1.04> Bad time.		
	<u=1.29>	up
	How can I say?	as
	<u=1.04>	up
<S1> Yeah!   And	-	- Yeah! And
<S1> Or we went to the <f=0.41> um <u=0.72>	<f=0.41> um	fp Or we went to the changing clothe room.
changing clothe room.		
	<u=0.72>	up
<S1> And but all girls	And	sc but all girls
<S1> are   in there, so very loud and	-	- are in there so very loud and
<S1> kind of <u=0.44> hot?   Wet?	<u=0.44>	up kind of hot? Wet?
Yeah, yeah! Humid. It was awful. <u=0.78>		
<S1> So, I had to <u=0.75> absent from school for	Humid.	tr Yeah, yeah! It was awful. So I had to absent
three days.		from school for three days.
	<u=0.78>	up
	<u=0.75>	up
<S1> <f=0.74> uh Tuesday till Thursday.	<f=0.74> uh	fp Tuesday till Thursday.
<S1> Yes.	-	- Yes.
<S1> And on Friday we have a special traditional		
<u=0.66> tournament	<u=0.66>	up And on Friday we have a special traditional
of our school.		tournament of our school.

<S1> Yeah, we have <f=0.44> um <u=0.56> kind of a festival <u=0.48> between Tsurumaru and Kounan. <u=0.54> We call it <f=0.77> uh Kokakusen.	<f=0.44> um	fp	Yeah we have kind of a festival between Tsurumaru and Kounan. We call it Kokakusen.
	<u=0.56>	up	
	<u=0.48>	up	
	<u=0.54>	up	
	<f=0.77> uh	fp	
<S1> And <u=0.52> we had tennis too.	<u=0.52>	up	And we had tennis too.
<S1> We won.	-	-	We won.
<S1> Yes.	-	-	Yes.
<S1> Yup.	-	-	Yup.
<S1> So each <u=0.74> each events I mean the soccer or tennis badminton	each	rp	So each events I mean the soccer or tennis badminton
	<u=0.74>	up	
	-	-	
<S1> Those have a points			Those have a points
<S1> and <u=0.48> we gonna add them all.	<u=0.48>	up	and we gonna add them all.
<S1> Running count?	Running count?	tr	-
<S1> No, it's because <f=0.52> um	<f=0.52> um	fp	No it's because
<S1> No because there are many places.	-	-	No because there are many places.

Learner turns (disfluencies in red)	Culled disfluencies	Pruned syllables
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<S2> <f=1.26> uh I was <u=0.49> exhausted	<f=1.26> uh	fp	I was exhausted because
	<u=0.49>	up	
<S2> Mmhm <f=0.95> um <u=0.81> this this is the time to <u=0.93> to <u=1.42> consider about <f=0.52> uh <u=0.72> increase salary or <f=0.87> uh freshman salary.	Mmhm	as	this is the time to consider about increase salary or freshman salary.
	<f=0.95> um	fp	
	<u=0.81>	up	
	this	rp	
	to	rp	
	<u=0.93>	up	
	<u=1.42>	up	
	<f=0.52> uh	fp	
	<u=0.72>	up	
	<f=0.87> uh	fp	
<S2> <f=0.70> um Many many thing we we had <u=0.52> uh we had to decide	<f=0.70> um	fp	Many thing we had to decide
	Many	rp	
	we	rp	
	we had	rp	
	<u=0.52>	up	
	uh	sfp	
<S2> or examine so <f=0.74> <inhale> I had to work <u=0.35> very hard.	<f=0.74>	fp	or examine so I had to work very hard.
	<inhale>		
	<u=0.35>	up	
<S2> S and so I was very <u=0.57> tired.	S	rs	and so I was very tired.
	<u=0.57>	up	
<S2> But <u=0.99> <f=0.62> um <u=1.04> on Sunday I went to <u=0.77> our hospital's farm <u=0.42> uh because <f=0.48> uh <u=1.14> on Golden Week <u=0.34> In on in?   <laugh=1.43>?	<u=0.99>	up	But on Sunday I went to our hospital's farm because
	<f=0.62> um	fp	
	<u=1.04>	up	
	<u=0.77>	up	
	<u=0.42>	up	
	uh	sfp	
	<f=0.48> uh	fp	
	<u=1.14>	up	
	on Golden Week	sc	
	<u=0.34>	up	
	In on in?	as	
	<laugh=1.43>	la	
<S2> In?	In?	tr	-
<S2> Mm. In Golden Week <u=0.49> my grandson will come come to Kagoshima	Mm.	as	in Golden Week my grandson will come to Kagoshima



	Straw we	sc	
	<u=0.85>	up	
	s	rs	
	eh	sfp	
	we	rp	
	<u=0.47>	up	
	<u=0.60>	up	
	<u=0.59>	up	
<S2> And <u=1.03> <f=0.79> eh <u=1.78> <f=1.18> mm <f=0.55> mm and we covered with <u=0.57> <f=1.29> <Japlang> <u=0.59>	And	rp	and we covered with
	<u=1.03>	up	
	<f=0.79> eh	fp	
	<u=1.78>	up	
	<f=1.18> mm	fp	
	<f=0.55> mm	fp	
	<u=0.57>	up	
	<Jp=1.29>	Jp	
	<u=0.59>	up	
	plastic.	sc	
<S2> <f=0.89> uh Black plastic	<f=0.89> uh	fp	black plastic
<S2> Mm yes mm.	-	-	Mm yes mm.
<S2>   But	-	-	But
<S2> Mmnn. Only <f=0.68> eh we hole cut a hole	<f=0.68> eh	fp	Mmnn. Only we cut a hole
	hole	sc	
<S2> and <u=0.42> the berry <u=0.59> <f=0.71> eh plant <u=0.74> in a hole.	<u=0.42>	up	and the berry plant in a hole.
	<u=0.59>	up	
	<f=0.71> eh	fp	
	<u=0.74>	up	
<S2> U under the part is covered with plastic.	U	rs	under the part is covered with plastic.
<S2> uh Yes yes.	uh	sfp	Yes yes.
<S2> I don't know.	-	-	I don't know.
<S2> Yes.	-	-	Yes.
<S2> No no.   No   flying.	-	-	No no.   No   flying.
<S2> No. <u=0.34> I don't know. <laugh=0.68>	<u=0.34>	up	No. I don't know.
	<laugh=0.68>	la	
<S2> <laugh=0.82> <f=0.46> um my my teacher my friend <u=0.31> <f=0.39> uh she is uh good at <u=0.78> green finger <laugh=2.22> <Japlang> green thumb?	<laugh=0.82>	la	my teacher my friend she is good at green thumb?
	<f=0.46> um	fp	
	my	rp	
	<u=0.31>	up	
	<f=0.39> uh	fp	
	uh	sfp	
	<u=0.78>	up	
	green finger	sc	
	<laugh=2.22>	la	
	<Jp>	Jp	
<S2> <laugh=0.74>   Green thumb. <f=1.03> uh She she <f=1.52> uh teach	<laugh=0.74>	la	she
	Green thumb.	tr	
	<f=1.03> uh	fp	
	She	rp	
	<f=1.52> uh	fp	
	teach	rp	
<S2> teach me taught me.	teach me	sc	taught me.

Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<p>&lt;S3&gt; Last last Saturday and Sunday I &lt;u=0.45&gt; um went to Nagashima.</p> <p>&lt;f=0.70&gt; uh &lt;u=0.73&gt; &lt;f=0.55&gt; &lt;inhale&gt; &lt;f=0.37&gt; uh &lt;u=0.49&gt; &lt;f=0.31&gt; ah &lt;u=0.38&gt; &lt;f=0.79&gt; mm for investigation &lt;f=0.56&gt; mm</p>	Last	rp	Last Saturday and Sunday I went to Nagashima
	<u=0.45> um	up sfp	
<p>&lt;S3&gt; uh some investigation. &lt;u=0.52&gt; I &lt;u=0.46&gt; &lt;f=0.81&gt; uh went to &lt;u=0.37&gt; &lt;f=0.53&gt; uh &lt;u=0.81&gt; there with a few stu graduate students.</p>	<f=0.70> uh	fp	for some investigation. I went to there with a few graduate students.
	<u=0.73>	up	
	<f=0.55>	fp	
	<f=0.37> uh	fp	
	<u=0.49>	up	
	<f=0.31> ah	fp	
	<u=0.38>	up	
	<f=0.79> mm	fp	
	investigation	rp	
	<f=0.56> mm	fp	
	uh	sfp	
	<u=0.52>	up	
	<u=0.46>	up	
	<f=0.81> uh	fp	
	<u=0.37>	up	
	<f=0.53> uh	fp	
	<u=0.81>	up	
	stu	rs	
<p>&lt;S3&gt; &lt;f=0.73&gt; mm This time &lt;f=0.37&gt; uh our purpose was &lt;f=0.67&gt; uh measuring &lt;f=0.68&gt; &lt;u=0.30&gt; the relics mm from the ancient &lt;u=0.56&gt; tombs</p>	<f=0.73> mm	fp	This time our purpose was measuring the relics from the ancient tombs
	<f=0.37> uh	fp	
	<f=0.67> uh	fp	
	<f=0.68> uh	fp	
	<u=0.30>	up	
	mm	sfp	
	<u=0.56>	up	
	-	-	
<S3> in Nagashima.			in Nagashima.
<p>&lt;S3&gt; Yes. And they kept &lt;f=0.77&gt; uh at a &lt;f=0.51&gt; &lt;inhale&gt; &lt;f=0.67&gt; uh museum.</p>	<f=0.77> uh	fp	Yes. And they kept at a museum.
	<f=0.51>	fp	
	<f=0.67> uh	fp	
<p>&lt;S3&gt; And &lt;cough=0.74&gt; &lt;f=0.56&gt; &lt;inhale&gt; &lt;f=0.60&gt; mm there there were &lt;f=0.50&gt; mm</p>	<cough=0.74>	iv	And there were iron sword
	<f=0.56>	fp	
	<f=0.60> mm	fp	
	there	rp	
	<f=0.50> mm	fp	
<p>&lt;S3&gt; &lt;f=0.57&gt; &lt;inhale&gt; &lt;f=0.43&gt; eh iron arrowhead heads</p>	<f=0.57>	fp	iron arrowheads
	<inhale>		
	<f=0.43> eh	fp	
	head	sc	
<p>&lt;S3&gt; And &lt;u=0.80&gt; &lt;f=0.81&gt; mm &lt;u=0.55&gt;</p>	<u=0.80>	up	And potteries
	<f=0.81> mm	fp	
	<u=0.55>	up	
<p>and so on. &lt;f=0.44&gt; &lt;inhale&gt; &lt;u=0.48&gt; &lt;f=0.82&gt; mm &lt;f=0.49&gt; uh &lt;u=0.65&gt; mm the &lt;u=0.31&gt; uh the &lt;u=0.66&gt; &lt;f=0.53&gt; eh &lt;u=0.57&gt; it they were &lt;f=0.62&gt; mm about &lt;f=0.74&gt; mm five uh fif fifteen thousand &lt;u=1.09&gt; to sixteen thousand &lt;u=0.40&gt; uh no &lt;f=0.94&gt; eh fourteen &lt;u=0.36&gt; fourteen thou fourteen thousand to &lt;u=0.87&gt; fifteen thousand years &lt;f=0.67&gt; uh &lt;u=0.39&gt; ago</p>	<f=0.44>	fp	and so on. They were about fourteen thousand to fifteen thousand years ago
	<inhale>		
	<u=0.48>	up	
	<f=0.82> mm	fp	

	<f=0.49> uh	fp	
	<u=0.65>	up	
	mm	sfp	
	the	rp	
	<u=0.31>	up	
	uh	sfp	
	the	sc	
	<u=0.66>	up	
	<f=0.53> eh	fp	
	<u=0.57>	up	
	it	sc	
	<f=0.62> mm	fp	
	<f=0.74> mm	fp	
	five	sc	
	uh	sfp	
	fif	rs	
	fifteen thousand	sc	
	to sixteen	sc	
	<u=1.09>	up	
	<u=0.40>	up	
	uh no	as	
	<f=0.94> eh	fp	
	fourteen	rp	
	<u=0.36>	up	
	fourteen thou	rs	
	<u=0.87>	up	
	<f=0.67> uh	fp	
	<u=0.39>	up	
<S3>	uh they were uh.	sfp	-
	they were	rp	-
	uh.	sfp	-
<S3>	<f=0.48> uh <u=1.21> And <f=0.65> uh <u=0.47> <f=0.68> uh <u=0.95> at five <f=0.31> uh we stopped <f=0.54> uh	<f=0.48> uh	fp And at five we stopped measuring
		<u=1.21>	up
		<f=0.65> uh	fp
		<u=0.47>	up
		<u=0.95>	up
		<f=0.31> uh	fp
		<f=0.54> uh	fp
<S3>	and went to <f=0.84> <inhale> <f=1.52> <Japlang> i inn <f=1.09> uh <Japlang> <f=0.54> eh traveler's inn?	<f=0.84>	fp and went to traveler's inn?
		<inhale>	
		<Jp=1.52>	Jp
		i	rs
		inn	sc
		<f=1.09> uh	fp
		<Jp>	Jp
		<f=0.54> eh	fp
<S3>	<Japlang> Ryokan? uh <Japlang> Minshuku. <laugh=1.30>	Ryokan?	tr Minshuku.
		uh	sfp
		<Jp>	Jp
		<laugh=1.30>	la
<S3>	And uh I <u=1.04> I was looking forward to <f=1.21> uh talking with each other <f=0.52> uh <f=0.39> mm <f=0.38> <inhale> because we took <f=0.67> uh <f=0.83> uh our university's s s student and <f=0.48> uh <u=0.36> we <u=0.39> <f=0.69> uh and <u=0.31> <f=0.50> mm <u=0.56> <f=0.53> mm there were <f=0.49> mm <u=0.53> Kagoshima University graduate students   too.	uh	sfp And I was looking forward to talking with each other because we took our university's student and there were Kagoshima University graduate students   too.
		I	rp
		<u=1.04>	up
		<f=1.21> uh	fp
		<f=0.52> uh	fp
		<f=0.39> mm	fp

	<f=0.38> fp <f=0.67> uh fp <f=0.83> uh fp s rs s rs and rp <f=0.48> uh fp <u=0.36> up we sc <u=0.39> up <f=0.69> uh fp <u=0.31> up <f=0.50> mm fp <u=0.56> up <f=0.53> mm fp <f=0.49> mm fp <u=0.53> up		
<S3> Two two <f=0.64> uh <u=1.10> two are two were <f=0.51> uh Kagoshima University students	Two	rp	two were Kagoshima University students
	two	rp	
	<f=0.64> uh	fp	
	<u=1.10>	up	
	two are	sc	
<S3> and two were <f=0.75> mm <u=0.74> our university   students.	<f=0.51> uh	fp	
	<f=0.75> mm	fp	and two were our university   students.
	<u=0.74>	up	
<S3> No but mm they were <f=0.43> uh there was <f=0.79> mm <u=0.34> curator in our	mm	sfp	No but there was curator in our museum.
	they were	sc	
	<f=0.43> uh	fp	
	<f=0.79> mm	fp	
	<u=0.34>	up	
<S3> <f=0.49> uh <u=0.57> S six i	<f=0.49> uh	fp	six
	<u=0.57>	up	
	S	rs	
	i	sc	
<S3> one day.   Six. Yes.	-	-	one day.   Six. Yes.
<hr/>			
Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<S4> Today's <u=0.62> today's car accident?	Today's	rp	today's car accident?
	<u=0.62>	up	
<S4> Ah another patient chronic? Mm.	-	-	Ah another patient chronic? Mm.
<S4> <Japlang> {So ka.} <u=0.70> Mm.	<Jp>	Jp	Mm.
	<u=0.70>	up	
<S4> Yeah. <u=0.58> Chronic is <f=0.63> uh <f=1.06> uh one or two months ago	<u=0.58>	up	Yeah. Chronic is one or two months ago
	<f=0.63> uh	fp	
	<f=1.06> uh	fp	
<S4> <f=0.63> uh s s some accident.	<f=0.63> uh	fp	some accident
	s	rs	
	s	rs	
<S4> They they have a accident. Sometimes car	They	rp	they have a accident. Sometimes car crash
<S4> sometimes <f=1.1> uh <u=0.46> broken the	<f=1.1> uh	fp	sometimes
	<u=0.46>	up	
	broken the head	sc	
<S4> Hit the head <u=0.55> <f=0.35> uh another something	<u=0.55>	up	Hit the head another something
	<f=0.35> uh	fp	
So <u=0.35> <f=0.87> uh <u=1.25> <f=1.01> <Japlang> {eto} <u=0.35> one <f=0.31> uh			
<S4> <u=0.64> one month ago <u=0.89> crash <f=0.31> uh hit the <u=0.68> head <u=0.86> <f=1.52> uh then <u=0.54> then no problem	<u=0.35>	up	So one month ago crash hit the head then no problem
	<f=0.87> uh	fp	
	<u=1.25>	up	
	<Jp=1.01>	Jp	



	<u=0.35> one	up rp	
	<f=0.31> uh	fp	
	<u=0.64>	up	
	<u=0.89>	up	
	<f=0.31> uh	fp	
	<u=0.68>	up	
	<u=0.86>	up	
	<f=1.52> uh	fp	
	then	rp	
	<u=0.54>	up	
<S4>	but <u=0.48> one month ago <f=0.31> uh o	up	but one month ago
	<u=0.48>	up	
	<f=0.31> uh	fp	
	o	sc	
<S4>	<f=0.37> unh <u=0.69> through?	fp	-
	<u=0.69>	up	
	through?	as	
	<laugh=0.74>	la	
	Later?   Later once month once a month		
<S4>	<u=0.48> <f=0.53> uh <u=0.31> some area		Later once a month some area
	<u=0.31> <f=0.67> uh <u=1.34> <f=1.18>		
	<Japlang> {eto nan da ke?} <u=1.49> blood?		
	once month	sc	
	<u=0.48>	up	
	<f=0.53> uh	fp	
	<u=0.31>	up	
	<u=0.31>	up	
	<f=0.67> uh	fp	
	<u=1.34>	up	
	<Jp=1.18>	Jp	
	<u=1.49>	up	
	blood?	as	
<S4>	Blood	-	Blood
<S4>	Stock	-	Stock
<S4>	<f=1.14> mm Special is nothing <u=0.41> but		Special is nothing but today judgement
	<u=0.88> today <u=0.98> judgement		
	<f=1.14> mm	fp	
	<u=0.41>	up	
	<u=0.88>	up	
	<u=0.98>	up	
<S4>	in Tokyo.	-	in Tokyo.
<S4>	Lucy   Blackman	-	Lucy   Blackman
<S4>	Not <f=0.64> uh <u=0.57> the ma <f=0.43>		the man is a not   guilty.
	uh the man is a not   guilty.		
	Not	sc	
	<f=0.64> uh	fp	
	<u=0.57>	up	
	the ma	rs	
	<f=0.43> uh	fp	
<S4>	But <u=0.34> <f=0.69> <Japlang> {eto} nine		But nine people is a guilty.
	people is a guilty.		
	<u=0.34>	up	
<S4>	For for nine people	Jp	for nine people
	For	rp	
<S4>	but	-	but
	Mm. <f=0.89> <Japlang> {eto} <u=0.87>		
<S4>	because <u=0.55> <f=0.39> eh nine people		Mm. because nine people has a videotape.
	<u=0.96> <f=1.38> <Japlang> <u=0.70> is a		
	<f=0.43> ah has a <u=0.52> videotape.		
	<Jp=0.89>	Jp	
	<u=0.87>	up	
	<u=0.55>	up	
	<f=0.39> eh	fp	
	<u=0.96>	up	
	<Jp=1.38>	Jp	
	<u=0.70>	up	
	is a	sc	
	<f=0.43> ah	fp	
	<u=0.52>	up	
<S4>	Yes.	-	Yes.
<S4>	Maybe.	-	Maybe.

<S4> Nine people has a videotape but Lucy Lucy's <u=0.42> video is no.	Lucy <u=0.42>	rp up	Nine people has a videotape but Lucy's video is no.
<S4> There is not <u=0.45> ah there is a not <u=0.76> her   videotape.	There is not <u=0.45> ah <u=0.76>	rp up sfp up	there is a not her   videotape.
<S4> So that <u=0.44> her <f=0.71> uh for her <u=1.85> is a not   guilty.	<u=0.44> her <f=0.71> uh <u=1.85>	up sc fp up	So that for her is a not   guilty.
<S4>   Yes.	-	-	Yes.
<S4> Angkor Wat!   <laugh=2.36> Mmnn. <laugh=1.14> <u=0.64> Not special	<laugh=2.36>	la	Angkor Wat!
<S4> but <u=0.76> <f=0.97> uh <u=1.09> clothes and <u=0.78> bug	<laugh=1.14> <u=0.64> <u=0.76> <f=0.97> uh <u=1.09> <u=0.78>	la up up fp up up	Mmnn. Not special but clothes and bug
<S4> spray   <laugh=0.87>   Bug spray. <laugh=1.20> And hat sunglass.	<laugh=0.87>	la	spray
<S4> <laugh=1.35> <u=0.51> Very <laugh=0.48> happy!   <laugh=0.81>	<laugh=1.20> <laugh=1.35> <u=0.51> <laugh=0.48> <laugh=0.81>	la la up la la	Bug spray. And hat sunglass. Very happy!
<S4> No <f=0.36> mm <u=1.04> nex <f=0.39> ah tomorrow	<f=0.36> mm <u=1.04> nex <f=0.39> ah tomorrow	fp up sc fp rp	No
<S4> tomorrow   afternoon I will go the bank	-	-	tomorrow   afternoon I will go the bank
<S4> <f=0.42> uh for Soshin. Soshin is a very	<f=0.42> uh	fp	for Soshin. Soshin is a very cheap.
<S4> Mm.	-	-	Mm.
<S4> Yeah   maybe.	-	-	Yeah   maybe.
<S4> Exchange   is a cheap.	-	-	Exchange   is a cheap.
<S4> Mm.	-	-	Mm.
<S4> So   change the U.S. dollar.	-	-	So   change the U.S. dollar.
<S4> Mm. But May first <u=0.45> is a working.	<u=0.45>	up	Mm. But May first is a working.

Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<S5> uh Today I visited <u=0.99> Kagoshima City Hospital	uh	sfp	Today I visited Kagoshima City Hospital
<S5> and <u=0.65> watched <u=1.68> <f=0.67> eh neuro s surgery.	<u=0.99>	up	
	<u=0.65>	up	and watched neuro surgery.
	<u=1.68>	up	
	<f=0.67> eh	fp	
<S5> <f=0.49> uh <u=0.68> Ka Kagoshima uh City Hospital s specially <u=1.06> <f=0.74> mm <u=1.56> <f=1.13> <Japlang> <u=2.85> specially about <u=1.96> acci acci <u=0.32> dent or <u=1.64> uh brain attack.	s	rs	Kagoshima City Hospital specially about acci dent or brain attack.
	<f=0.49> uh	fp	
	<u=0.68>	up	
	Ka	rs	
	uh	sfp	
	s	rs	
	specially	rp	
	<u=1.06>	up	
	<f=0.74> mm	fp	
	<u=1.56>	up	



<S5>	<f=0.50> uh <u=0.63> car <f=0.35> uh some patient <u=1.60> car <f=0.65> mm?	<u=0.35> up	
		<f=0.50> uh	fp some patient car
		<u=0.63> car	up sc
		<f=0.35> uh	fp
		<u=1.60> mm?	up as
		-	-
<S5>	Yes.	Ca	rs   Yes.
<S5>	Ca car crash yes.	car crash	tr yes.
		Uh	sfp
<S5>	Uh n no just s see patient.	n	rs no just see patient.
		s	rs
		-	-
<S5>	Not   serious accident.	he inj	sc Not   serious accident.
<S5>	But he <u=0.49> inj uh she was injured.	<u=0.49> uh	up But she was injured.
		uh	sfp
<S5>	<f=0.46> <inhale> I th th tho I think she didn't broke <u=0.79> bone but	<f=0.46> <inhale>	fp I think she didn't broke bone but
		I	rp
		th	rs
		th	rs
		tho	sc
		<u=0.79>	up
<S5>	bl blood mm?	bl	rs blood
		mm?	as
<S5>	Bleeding.	Bleeding.	tr -
<S5>	Yes.	-	- Yes.
		-	-
<S5>	Maybe. <f=0.45> uh <f=0.38> mm sh she m maybe she <u=2.68> mm mm bike sh she	<f=0.45> uh	fp Maybe. maybe she bike
		<f=0.38> mm	fp
		sh	rs
		she m	sc
		<u=2.68>	up
		mm	sfp
		mm	sfp
		sh	rs
		she	sc
<S5>	Bike <f=0.57> uh bi motor   motorbike.	Bike	rp motorbike.
		<f=0.57> uh	fp
		bi	sc
		motor	rs
<S5>	Motorcycle.   Not car.	Motorcycle.	tr Not car.
<S5>	She can wa walk.	wa	rs She can walk.
<S5>	Yeah.	-	- Yeah.
		-	-
<S5>	And I <f=0.49> uh I watched <u=0.89> operation. <u=1.20> uh The patient was <u=1.58> <f=1.42> <Japlang> <u=2.39> bleeding in <u=0.77> brain.	I	rp And I watched operation. The patient was bleeding in brain.
		<f=0.49> uh	fp
		<u=0.89>	up
		<u=1.20>	up
		uh	sfp
		<u=1.58>	up
		<Jp=1.42>	Jp
		<u=2.39>	up
		<u=0.77>	up
<S5>	<f=0.88> mm I'm not sure but <f=0.67> <inhale> <u=1.00> <f=0.67> uh <u=0.89> chro chronic	<f=0.88> mm	fp I'm not sure but chronic
		<f=0.67>	fp
		<u=1.00>	up
		<f=0.67> uh	fp
		<u=0.89>	up
		chro	rs
<S5>	BI <u=0.31> bleeding.	BI	rs bleeding.
		<u=0.31>	up

<S5> Uh no ano another patient.	Uh ano	sfp rs	no another patient.
Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<S6> <f=0.55> Uh <u=0.84> about <u=0.37> Shintaro Ishihara.	<f=0.55> Uh	fp	about Shintaro Ishihara.
	<u=0.84>	up	
	<u=0.37>	up	
<S6> <laugh=0.75>	<laugh=0.75>	la	-
<S6> He was reelected	-	-	He was reelected
<S6> on April <u=0.57> eighth	<u=0.57>	up	on April eighth
<S6> <f=0.99> um to third term as Tokyo governor.	<f=0.99> um	fp	to third term as Tokyo governor.
And easily fending off former Miyagi governor			And easily fending off former Miyagi governor
<S6> Shiro Asano and <u=0.42> twelve other challengers.	<u=0.42>	up	Shiro Asano and twelve other challengers.
And <u=0.40> he <u=0.31> in this picture is laughing boisterously.	<u=0.40>	up	And he in this picture is laughing boisterously.
	<u=0.31>	up	
<S6> <laugh=0.86> Yes. <f=0.75> uh <u=0.32> He won a landslide   victory.	<laugh=0.86>	la	Yes. He won a landslide   victory.
	<f=0.75> uh	fp	
	<u=0.32>	up	
<S6> Ishihara had two point eight one million votes	-	-	Ishihara had two point eight one million votes
<S6> while Asano <u=0.35> <f=0.37> uh got one point six nine <u=0.55> votes	<u=0.35>	up	while Asano got one point six nine votes
	<f=0.37> uh	fp	
	<u=0.55>	up	
<S6> <f=1.12> um according to the Tokyo election   office.	<f=1.12> um	fp	according to the Tokyo election   office.
<f=0.70> mm <u=0.53> <f=0.71> um			
<S6> <u=0.52> But the election returns made me doubt my eyes and ears.	<f=0.70> mm	fp	But the election returns made me doubt my eyes and ears.
	<u=0.53>	up	
	<f=0.71> um	fp	
	<u=0.52>	up	
Because <u=0.42> he recently <f=0.76> uh			
<S6> came under allegations of <f=0.59> uh	<u=0.42>	up	Because he recently came under allegations of misuse of public   funds
<u=0.59> misuse of public   funds			
	<f=0.76> uh	fp	
	<f=0.59> uh	fp	
	<u=0.59>	up	
<S6> for <u=0.45> <f=0.77> uh costly overseas	<u=0.45>	up	for costly overseas   trips.
	<f=0.77> uh	fp	
And <u=0.31> for appointing his fourth son as			
<S6> <u=0.52> the art dir director <f=0.89> uh for	<u=0.31>	up	And for appointing his fourth son as the art director for metropolitan government project in Davos, Switzerland.
<u=0.56> metropolitan government project in Davos, Switzerland.			
	<u=0.52>	up	
	dir	rs	
	<f=0.89> uh	fp	
	<u=0.56>	up	
<S6> <f=0.46> mm   And <u=0.70> he has been criticized for cronyism.	<f=0.46> mm	fp	And he has been criticized for cronyism.
	<u=0.70>	up	
<S6> Cronyism.	-	-	Cronyism.
<S6> C-R-   O-N-Y-I- <u=0.36> S-M. <u=0.56> C-R-	<u=0.36>	up	C-R-   O-N-Y-I- S-M. C-R-O-N-Y-I-S- M.
O-N-Y-I-S- <u=0.51> M. Cronyism.			Cronyism.
	<u=0.56>	up	
	<u=0.51>	up	
<S6> Friend?	-	-	Friend?
<S6>   Yes.	-	-	Yes.
<S6> Mm   yes mmhm.	-	-	Mm   yes mmhm.
<S6> Mmhm.	-	-	Mmhm.
It is said that he has promoted <u=0.35>			
<S6> Hitotsubashi alumni <u=0.32> to higher positions.	<u=0.35>	up	It is said that he has promoted Hitotsubashi alumni to higher positions.
	<u=0.32>	up	
<S6> He graduated from Hitotsubashi University.	-	-	He graduated from Hitotsubashi University.

<S6>	It is located in Tokyo	-	-	It is located in Tokyo
<S6>	And it's a very prestigious   university	-	-	And it's a very prestigious   university
<S6>	with a long history.	-	-	with a long history.
Learner turns (disfluencies in red)		Culled disfluencies		Pruned syllables
<S7>	I would like to show one photo from Internet.	-	-	I would like to show one photo from Internet.
<S7>	It's   not <u=0.37> clear but <u=0.79> So what is he doing?	<u=0.37>	up	It's   not clear but So what is he doing?
		<u=0.79>	up	
<S7>	Yes of course.	-	-	Yes of course.
<S7>	What is he doing?	-	-	What is he doing?
<S7>	Oh really? Yeah   yeah it's	-	-	Oh really? Yeah   yeah it's
<S7>	Yes. Painting the <u=0.57> uh brown grass.	<u=0.57>	up	Yes. Painting the brown grass.
		uh	sfp	
<S7>	So <u=0.37> I'd like to   talk about the <u=0.35> <f=0.91> uh food safety about <u=0.45> uh and Chinese vegetables.	<u=0.37>	up	So I'd like to   talk about the food safety and Chinese vegetables.
		<u=0.35>	up	
		<f=0.91> uh	fp	
		about	sc	
		<u=0.45>	up	
		uh	sfp	
<S7>	So and I picked up the <u=0.81> <f=0.86> uh <f=0.55> uh one I picked up the ethnic joke book.	So	sfp	and I picked up the ethnic joke book.
		I picked up the	rp	
		<u=0.81>	up	
		<f=0.86> uh	fp	
		<f=0.55> uh	fp	
		one	sc	
<S7>	In <u=0.49> Friday class so named <Japlang> {Imojima joku shu} so i i i in i i in it so there is a name titled <u=0.41> uh Blue Giraffe so I I'd like to say again about this joke. So if uh if the <u=0.52> uh One day so the rich man uh said <u=0.46> to everybody <f=0.57> uh so i if you <u=0.82> can make you show me blue giraffe so I would like to pay <f=0.56> uh a big <u=0.72> a big prize to <u=0.60> to <u=0.42> to s to him. So the English people <u=0.55> <f=0.70> uh the English <f=0.44> uh scientists <u=0.45> debate <u=0.35> if the blue giraffe exists or not. <u=0.41> uh But the Ge Ge German German scientists <u=0.39> checked the references. And the <u=0.53> Ja Japanese scientists <u=0.43> <f=0.39> uh researched very hard hard how to make the blue giraffe. And but the Chinese <u=0.51> scien Chinese people <u=0.38> go to buy	<u=0.49>	up	In Friday class named {Imojima joku shu} in it there is a name titled Blue Giraffe so I'd like to say again about this joke. One day the rich man said to everybody if you can show me blue giraffe I would like to pay a big prize to him. So the English scientists debate if the blue giraffe exists or not. But the German scientists checked the references. And the Japanese scientists researched very hard how to make the blue giraffe. But the Chinese people go to buy paint.
		so	sfp	
		so	sfp	
		i	rs	
		i	rs	
		i	rs	
		in	rp	
		i	rs	
		i	rs	
		so	sfp	
		<u=0.41>	up	
		uh	sfp	
		I	rp	
		So if	sc	
		uh	sfp	
		if the	sc	
		<u=0.52>	up	
		uh	sfp	
		so	sfp	

	uh	sfp	
	<u=0.46>	up	
	<f=0.57> uh	fp	
	so	sfp	
	i	rs	
	<u=0.82>	up	
	make you	sc	
	so	sfp	
	<f=0.56> uh	fp	
	a big	rp	
	<u=0.72>	up	
	to	rp	
	<u=0.60>	up	
	to	rp	
	<u=0.42>	up	
	to s	sc	
	the English	sc	
	<u=0.55>	up	
	<f=0.70> uh	fp	
	<f=0.44> uh	fp	
	<u=0.45>	up	
	<u=0.35>	up	
	<u=0.41>	up	
	uh	sfp	
	Ge	rs	
	Ge	rs	
	German	rp	
	<u=0.39>	up	
	<u=0.53>	up	
	Ja	rs	
	<u=0.43>	up	
	<f=0.39> uh	fp	
	hard	rp	
	And	sc	
	Chinese scien	sc	
	<u=0.51>	up	
	<u=0.38>	up	
	<u=0.40>	up	
<S7>	So <u=0.62> but   <f=0.62> eh but <f=0.47> eh but I think it is just joke but it's real thing.	So	sfp but I think it is just joke but it's real thing.
		<u=0.62>	up
		but	rp
		<f=0.62> eh	fp
		but	rp
		<f=0.47> eh	fp
		-	-
<S7>	Yeah I was very shocked.		Yeah I was very shocked.
	To so <u=0.70> In   China so the <u=0.44> to		In   China to prepare the Beijing Olympic
<S7>	prepare the Ch <f=0.59> uh Beijing Olympic Games.	To	sc Games.
		so	sfp
		<u=0.70>	up
		so the	sc
		<u=0.44>	up
		Ch	rs
		<f=0.59> uh	fp
Learner turns (disfluencies in red)		Culled disfluencies	
		Pruned syllables	
<S9>	What's new? <u=1.75> <f=0.71> Uh <u=0.60> I went to Nara	What's new?	tr I went to Nara
		<u=1.75>	up
		<f=0.71> Uh	fp
		<u=0.60>	up
<S9>	<f=1.22> uh la last Sunday.	<f=1.22> uh	fp last Sunday.
		la	rs
	<f=0.93> uh to <u=0.33> celebrate <u=0.74> <f=1.59> uh <u=1.66> <f=1.38> mm <u=0.58> my sister-in-law's <u=0.39> recovery from illness.	<f=0.93> uh	fp to celebrate my sister-in-law's recovery from illness.

	<u=0.33>	up	
	<u=0.74>	up	
	<f=1.59> uh	fp	
	<u=1.66>	up	
	<f=1.38> mm	fp	
	<u=0.58>	up	
	<u=0.39>	up	
<S9> <f=1.28> Uh sh she suffered <u=0.36> <f=0.88> uh <u=2.89> <df=pr> arachnoid <u=1.24> bleeding.	<f=1.28> Uh	fp	she suffered arachnoid bleeding.
	sh	rs	
	<u=0.36>	up	
	<f=0.88> uh	fp	
	<u=2.89>	up	
	<u=1.24>	up	
<S9> <f=0.97> <Japlang>	<Jp=0.97>	Jp	-
<f=0.81> Uh no <f=0.58> uh <f=0.39> uh yes	<f=0.81> Uh	fp	yes
<S9> bl <f=0.51> uh <u=0.36> <f=0.91> <Japlang> {Nan da ke}	no	sc	
	<f=0.58> uh	fp	
	<f=0.39> uh	fp	
	bl	sc	
	<f=0.51> uh	fp	
	<u=0.36>	up	
	<Jp=0.91>	Jp	
<S9> A arachnoid arachnoid arachnoid?	A	rs	-
	arachnoid		
	arachnoid	as	
	arachnoid?		
<S9> And	And	sc	-
<S9> <f=1.03> Uh <u=1.20> so he had a she had a operation	<f=1.03> Uh	fp	so she had a operation
	<u=1.20>	up	
	he had a	sc	
<S9> <f=0.67> uh it was very <u=0.35> it was	<f=0.67> uh	fp	it was critical.
	it was very	sc	
	<u=0.35>	up	
<S9> But   she survi <u=0.33> she survived	she survi	rs	But   she survived
	<u=0.33>	up	
<S9> <f=0.38> uh miraculously.	<f=0.38> uh	fp	miraculously.
<f=1.14> uh <u=0.48> <f=1.03> uh <u=0.49> sh <u=0.38> after <u=0.74> first <u=0.37> uh	<f=1.14> uh	fp	after first operation subarachnoid
<S9> operation <u=0.34> <f=0.87> <Japlang> <u=0.51> <f=0.80> uh <u=0.63> s <u=0.70> ah subarach <f=0.38> uh arachnoid	<u=0.48>	up	
	<f=1.03> uh	fp	
	<u=0.49>	up	
	sh	sc	
	<u=0.38>	up	
	<u=0.74>	up	
	<u=0.37>	up	
	uh	sfp	
	<u=0.34>	up	
	<Jp=0.87>	Jp	
	<u=0.51>	up	
	<f=0.80> uh	fp	
	<u=0.63>	up	
	s	rs	
	<u=0.70>	up	
	ah	sfp	
	subarach	rs	
	<f=0.38> uh	fp	
	arachnoid	sc	
<S9> Yes, yes, that's right.	-	-	Yes, yes, that's right.



<S9>	<laugh=2.80>   And <f=0.43> uh the <f=2.28> <Japlang> <f=1.58> uh cer cerebre <u=0.85> spinal	<laugh=2.80>	la	And spinal
		<f=0.43> uh	fp	
		<Jp=2.28>	Jp	
		the	sc	
		<f=1.58> uh	fp	
		cer	rs	
		cerebre	sc	
		<u=0.85>	up	
<S9>	<f=0.49> uh fluid	<f=0.49> uh	fp	fluid
<S9>	<f=0.46> eh was le leaking <u=0.32> so he she had <u=0.53> <f=0.62> uh operation	<f=0.46> eh	fp	was leaking so she had operation again.
		le	rs	
		<u=0.32>	up	
		he	sc	
		<u=0.53>	up	
		<f=0.62> uh	fp	
<S9>	<indecipherable>	<indecipherable>	in	-
<S9>	Yes, yes.	-	-	Yes, yes.
	<f=0.61> uh <f=0.68> um and <f=0.32> uh	<f=0.61> uh	fp	but her motor nerve
<S9>	she <f=0.42> uh the but she <f=0.49> um <u=0.42> sh her motor <u=0.31> <f=0.95> uh	<f=0.68> um	fp	
		and	sc	
		<f=0.32> uh	fp	
		she	sc	
		<f=0.42> uh	fp	
		the	sc	
		she	rp	
		<f=0.49> um	fp	
		<u=0.42>	up	
		sh	sc	
		<u=0.31>	up	
		<f=0.95> uh	fp	
<S9>	wa wasn't   damaged	wa	rs	wasn't   damaged
<S9>	so he can she can <f=1.06> uh move their <u=0.39> hand and foot.	he can	sc	so she can move their hand and foot.
		<f=1.06> uh	fp	
		<u=0.39>	up	
<S9>	<f=0.41> uh and <f=2.16> uh <u=0.40> not <f=0.95> uh <f=0.96> <Japlang> <f=0.86> uh mind not dam he was uh	<f=0.41> uh	fp	and mind not
		<f=2.16> uh	fp	
		<u=0.40>	up	
		not	sc	
		<f=0.95> uh	fp	
		<Jp=0.96>	Jp	
		<f=0.86> uh	fp	
		dam	sc	
		he was	sc	
		uh	sfp	
<S9>	<f=1.04> uh   yes.	<f=1.04> uh	fp	yes.
<S9>	<f=0.58> ah uh no she had a <f=1.38> uh <u=2.39> One of her <u=0.31> ears	<f=0.58> ah	fp	no One of her ears
		uh	sfp	
		she had a	sc	
		<f=1.38> uh	fp	
		<u=2.39>	up	
		<u=0.31>	up	
<S9>	<f=0.56> uh ca can't hear.	<f=0.56> uh	fp	can't hear.
		ca	rs	
<S9>	And <f=0.87> uh the <u=1.08> one of eyes <u=0.45> <f=0.88> uh <u=0.64> the iris <u=0.68> can't move.	<f=0.87> uh	fp	And one of eyes the iris can't move.
		the	sc	
		<u=1.08>	up	
		<u=0.45>	up	

	<f=0.88> uh <u=0.64> <u=0.68>	fp up up	
<S9>	So but he exercised move <u=0.66> here and there <u=0.87> <f=0.65> uh <f=0.34> uh it's a <f=1.05> uh <u=0.35> <f=0.63> uh <u=0.64> got better.	<u=0.66> up	So but he exercised move here and there it's a got better.
	<u=0.87> <f=0.65> uh <f=0.34> uh <f=1.05> uh <u=0.35> <f=0.63> uh <u=0.64>	up fp fp fp up fp up	
<S9>	The <f=0.72> uh <u=0.82> the doctor i her doctor in charge <u=0.32> was <f=0.53> uh surprised.	The rp	her doctor in charge was surprised.
	<f=0.72> uh <u=0.82> the doctor i <u=0.32> <f=0.53> uh	fp up sc up fp	
<S9>	<f=0.32> uh and <f=0.69> uh she looks uh dou <f=0.45> uh things double	<f=0.32> uh fp <f=0.69> uh fp uh sfp dou rs <f=0.45> uh fp	and she looks things double
<S9>	But <f=0.39> uh it's <f=0.71> <Japlang> <u=0.69> uh get <u=0.40> getting bet <f=0.49> <Japlang> <f=0.88> uh <f=0.52> uh that was getting better.	<f=0.39> uh fp  it's sc <Jp=0.71> Jp <u=0.69> up uh sfp get rs <u=0.40> up getting bet rs <Jp=0.49> Jp <f=0.88> uh fp <f=0.52> uh fp	But that was getting better.

Learner turns (disfluencies in red)		Culled disfluencies		Pruned syllables
<S10>	<f=0.93> mm <u=1.43> Among these <u=0.45> f five days <u=0.84> I drank four	<f=0.93> mm fp <u=1.43> up <u=0.45> up f rs <u=0.84> up ti rs	Among these five days I drank four days.	
<S10>	I'm ti tired.   Not not <f=0.75> mm <u=0.38> One one party is with my students <u=0.59> and <u=1.29> usual <f=0.30> uh <f=0.56> uh usual usual	Not rp	Not. One party is with my students and usual squid and horse mackerel party.	
<S10>	<f=0.42> uh <f=0.71> uh <u=0.82> s s squid s squid and uh <u=0.33> horse mackerel party. <laugh=1.76>	<f=0.75> mm fp <u=0.38> up One rp <u=0.59> up <u=1.29> up usual rp <f=0.30> uh fp <f=0.56> uh fp usual rp <f=0.42> uh fp <f=0.71> uh fp		

<S10 <u=0.53> After experiment  
 <S10 we eat it.  
 <S10 And it's on the Friday. <u=0.35> Saturday  
 > <u=1.08> ex <f=0.51> uh colleague  
  
 <S10 retired colleague <u=0.46> invited us uh  
 > because <u=0.39> they he made a new  
  
 <S10 So <u=1.81> invite us and <u=0.89> we  
 > <u=0.49> we we <u=0.33> eat his his  
 <u=1.08> his <f=0.57> mm <u=0.77> cooking  
  
 <S10 At his | house.  
 <S10 Monday <u=1.81> my wife was busy so we go  
 > out.  
 <S10 Yesterday <u=0.39> my colleague called me  
 > to drink out so <laugh=2.46>  
  
 <S10 wah  
 <S10 Ah yes.  
 <S10 Holiday for my bra <f=0.31> uh <f=0.64> eh  
 > <u=0.41> my uh uh liver  
  
 <S10 liver and | <laugh=1.53>  
 <S10 Ah yes | mm.  
 <S10 No.  
 <S10 Not at all.  
 <S10 Only me. <laugh=0.96>  
 <S10 Fish.  
 <S10 It's a ve ve  
  
 <S10 very very popular fish.  
 <S10 <f=0.82> mm <f=0.42> mm <u=0.34> I don't  
  
 <S10 No <laugh=0.74> not at all. |  
 <S10 Very different from.  
 <S10 Taste  
 <S10 in clothes.

<u=0.82>	up	
s	rs	
s	rs	
squid	rp	
s	rs	
uh	sfp	
<u=0.33>	up	
<laugh=1.76>	la	
<u=0.53>	up	After experiment
-	-	we eat it.
s	sc	And it's on the Friday. Saturday
<u=0.35>	up	
<u=1.08>	up	
ex colleague	sc	
<f=0.51> uh	fp	
<u=0.46>	up	retired colleague invited us because he made
uh	sfp	a new house.
<u=0.39>	up	
they	sc	
<u=1.81>	up	So invite us and we eat his cooking meal
<u=0.89>	up	
we	rp	
<u=0.49>	up	
we	rp	
<u=0.33>	up	
his	rp	
his	rp	
<u=1.08>	up	
<f=0.57> mm	fp	
<u=0.77>	up	
m	rs	
uh	sfp	
-	-	At his   house.
<u=1.81>	up	Monday my wife was busy so we go out.
<u=0.39>	up	Yesterday my colleague called me to drink out
<laugh=2.46>	la	so
-	-	wah
Ah	sfp	yes.
my bra	sc	Holiday for my
<f=0.31> uh	fp	
<f=0.64> eh	fp	
<u=0.41>	up	
uh	sfp	
uh	sfp	
liver	rp	
<laugh=1.53>	la	liver and
Ah	sfp	yes   mm.
-	-	No.
-	-	Not at all.
<laugh=0.96>	la	Only me.
-	-	Fish.
ve	rs	It's a
ve	rs	
very	rp	very popular fish.
<f=0.82> mm	fp	I don't know.
<f=0.42> mm	fp	
<u=0.34>	up	
<laugh=0.74>	la	No not at all.
-	-	Very different from.
Taste	tr	-
in clothes.	tr	-

<S10 >	Clothes. <u=2.34> <f=0.75> mm <u=0.48> I like casual	Clothes. <u=2.34> <f=0.75> mm <u=0.48>	tr up fp up	I like casual
<S10 >	wear <f=0.39> mm so u usually I <u=0.43> put on such a <u=0.37> mm	<f=0.39> mm u <u=0.43> <u=0.37> mm	fp rs up up sfp	wear so usually I put on such a
<S10 <S10 <S10	Casual. Yes. Mm. uh mm I like <f=0.55> uh brownish ye uh	- - uh mm <f=0.55> uh ye uh uh -	- - sfp sfp fp sc sfp sfp -	Casual. Yes. Mm. I like brownish colour.
<S10 <S10 <S10 >	But uh     Mm.   But <f=0.42> mm sometimes uh blue <f=0.38> uh n n not not grey or som som	uh mm <f=0.42> mm uh n n not som som -	sfp sfp fp sfp - - - - - -	But   Mm.   But sometimes blue not grey or
<S10 <S10 >	I wear. Yes. Most of my my clothes were <u=0.46> chose by <u=0.63> my wife.	uh <u=0.46> <u=0.63>	sfp fp rs rs rp rs sc -	I wear. Yes. Most of my my clothes were chose by my wife.
<S10 <S10	Sometimes I go with her but usually sh sh she bought it by herself.	- sh sh -	- rs rs -	Sometimes I go with her but usually she bought it by herself.
<S10	Choosing clothes is annoying to me.	-	-	Choosing clothes is annoying to me.
Learner turns (disfluencies in red)		Culled disfluencies		Pruned syllables
<S11 >	<f=1.13> uh <u=0.82> we have <f=0.37> uh we ha had <u=0.85> welcome party last <u=1.82> uh last Th <u=0.52> Thursday.	<f=1.13> uh <u=0.82> we have <f=0.37> uh ha <u=0.85> last <u=1.82> uh Th <u=0.52>	fp up sc fp rs up rp up rs up fp up up	we had welcome party last Thursday.
<S11	<f=0.78> uh I had to <u=0.77> be <u=0.42>	<f=0.78> uh <u=0.77> <u=0.42>	fp up up	I had to be MC.
<S11 >	We have <u=1.49> about forty <u=0.31> members.	<u=1.49> <u=0.31>	up up	We have about forty members.
<S11 >	<f=0.89> uh <u=0.34> <f=0.73> <inhale> <u=0.50> I <u=2.29> uh new <f=0.55> eh we have new eight <u=0.54> eight eight new mem   members	<f=0.89> uh <u=0.34> <f=0.73> <u=0.50> I <u=2.29> uh new	fp up fp up sc up sfp rp	we have eight new members



		<f=0.67> eh	fp	
		<u=1.39>	up	
		<Jp=1.11>	Jp	
		<u=0.58>	up	
		<Jp=0.65>	Jp	
		<u=2.74>	up	
		we can drink	sc	
		<u=0.95>	up	
		<u=3.79>	up	
		<f=0.89>	fp	
		<Jp=1.86>	Jp	
		<u=1.33>	up	
		<u=1.16>	up	
<S11	Something	<f=0.34> uh We can	<f=0.34> uh	fp Something we could drink
>	we could drink			
		We can	sc	
		<u=1.07>	up	
		uh	sfp	
<S11	<indecipherable>	<indecipherable>	in	-
<S11	Yes. Ah!	As much as we	tr	Yes. Ah!
>	As much as we want.	want.		
<S11	Open.	Open.	tr	-
	Open   bar?			
	Ah open bar but	<u=0.94> but		
	<u=0.35> we could	<u=0.34> drink		
	<u=1.17>			
<S11	<f=0.77> uh	<u=1.59> <f=0.80> eh		
>	<u=0.40> shochu and ah	<u=0.34> <f=0.44> eh beer,	Open   bar?	tr Ah open bar but we could drink beer, shochu and oolong tea?
	shochu and	<u=1.94> <f=0.79> eh		
	<u=2.01> oolong tea?			
		but	rp	
		<u=0.94>	up	
		<u=0.35>	up	
		<u=0.34>	up	
		<u=1.17>	up	
		<f=0.77> uh	fp	
		<u=1.59>	up	
		<f=0.80> eh	fp	
		<u=0.40>	up	
		shochu and	sc	
		ah	sfp	
		<u=0.34>	up	
		<f=0.44> eh	fp	
		<u=1.94>	up	
		<f=0.79> eh	fp	
		<u=2.01>	up	
<S11	Ah your pet.	your pet.	tr	Ah
<S11	<f=1.12> eh Pet.	<u=1.85> <f=0.36> uh I don't	<f=1.12> eh	fp I don't have any pet.
>	have	<u=0.39> any pet.		
		Pet.	tr	
		<u=1.85>	up	
		<f=0.36> uh	fp	
		<u=0.39>	up	
<S11	<f=0.35> uh Yes.	<f=1.56> eh	<f=0.35> uh	fp Yes. fifteen years ago?
>	fifteen	<u=0.34> years ago?		
		<f=1.56> eh	fp	
		<u=1.71>	up	
		<u=0.34>	up	
<S11	Not my pet, our pet.		-	Not my pet, our pet.
<S11	Uhuh.		-	Uhuh.
	eh mm   Dog.	<u=0.71> <f=0.82> mm		
	<u=0.89> My	<u=1.39> my sister		
	<u=1.89>	<f=0.54> eh		
	<f=0.88> <Japlang> {Nan da		eh	sfp Dog. Someone gave my sister a dog.
>	ke?}	<u=1.93> Someone gave		
	sister	<u=0.44> my		
	sister	<u=0.48> a dog.		
		mm	sfp	
		<u=0.71>	up	
		<f=0.82> mm	fp	
		<u=0.89>	up	
		My	rp	



Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<p>Uhhuh. &lt;u=0.46&gt; uh My name is Yasuko Kurono. &lt;u=1.54&gt; &lt;f=0.46&gt; uh I have a &lt;u=0.51&gt; dau two daughter. Elderly one is twenty-two years old &lt;u=0.35&gt; youngest one is <b>two</b> twenty years old. &lt;u=0.31&gt; I think same age with you. &lt;laugh=1.21&gt; &lt;u=0.75&gt; Yeah. &lt;u=0.75&gt; So &lt;u=0.38&gt; I'm I'm feeling &lt;u=0.49&gt; uh I study with my daughter. &lt;laugh=1.81&gt; &lt;u=0.99&gt; Mmhm. &lt;u=0.44&gt; &lt;f=0.46&gt; mm My hobby is &lt;u=1.09&gt; golf and swimming and tennis and <b>kara</b> karaoke.</p> <p>&lt;S12&gt; I'm very busy!   &lt;laugh=1.79&gt;</p> <p>&lt;S12&gt; &lt;f=1.45&gt; um &lt;u=0.65&gt; Twice a month.</p> <p>&lt;S12&gt; It's lunch.   &lt;laugh=1.50&gt;</p> <p>&lt;S12&gt; It's eight hundred yen</p> <p>&lt;S12&gt; including lunch.</p> <p>&lt;S12&gt; And   two hours we we can sing.</p> <p>&lt;S12&gt; <b>Wha who who who?</b></p> <p>&lt;S12&gt; Uhhuh   yeah.</p> <p>&lt;S12&gt; <b>They are</b> they are friends with mm &lt;u=0.32&gt;</p> <p>&gt; swimming pool.</p> <p>&lt;S12&gt; Uhhuh.</p> <p>&lt;S12&gt; I'm going to Oita.</p> <p>&lt;S12&gt; I'm going to go Oita.</p> <p>&lt;S12&gt; To my &lt;u=0.33&gt; mother-in-law's house.</p> <p>&lt;S12&gt; Uhhuh. And stay one night.</p> <p>&lt;S12&gt; I will make a supper.</p> <p>&lt;S12&gt; She lives alone</p> <p>&lt;S12&gt; so &lt;u=2.95&gt; &lt;f=0.44&gt; mm &lt;u=0.78&gt; &lt;f=1.32&gt;</p> <p>&gt; &lt;Japlang&gt;</p> <p>&lt;S12&gt; Of course.   &lt;laugh=2.36&gt;</p> <p>&lt;S12&gt; She is very &lt;u=0.69&gt; good &lt;u=0.33&gt; woman.</p> <p>&lt;S12&gt; She is very <b>polite to</b> &lt;u=0.51&gt; polite and</p> <p>&gt; &lt;u=0.81&gt; soft?</p>	<p>&lt;u=0.46&gt;</p> <p>uh</p> <p>&lt;u=1.54&gt;</p> <p>&lt;f=0.46&gt; uh</p> <p>a dau</p> <p>&lt;u=0.51&gt;</p> <p>&lt;u=0.35&gt;</p> <p>two</p> <p>&lt;u=0.31&gt;</p> <p>&lt;laugh=1.21&gt;</p> <p>&lt;u=0.75&gt;</p> <p>&lt;u=0.75&gt;</p> <p>&lt;u=0.38&gt;</p> <p>I'm</p> <p>&lt;u=0.49&gt;</p> <p>uh</p> <p>&lt;laugh=1.81&gt;</p> <p>&lt;u=0.99&gt;</p> <p>&lt;u=0.44&gt;</p> <p>&lt;f=0.46&gt; mm</p> <p>&lt;u=1.09&gt;</p> <p>kara</p> <p>&lt;laugh=1.79&gt;</p> <p>&lt;f=1.45&gt; um</p> <p>&lt;u=0.65&gt;</p> <p>&lt;laugh=1.50&gt;</p> <p>-</p> <p>-</p> <p>-</p> <p>Wha</p> <p>who</p> <p>who</p> <p>who?</p> <p>-</p> <p>They are</p> <p>mm</p> <p>&lt;u=0.32&gt;</p> <p>-</p> <p>-</p> <p>-</p> <p>&lt;u=0.33&gt;</p> <p>-</p> <p>-</p> <p>-</p> <p>&lt;u=2.95&gt;</p> <p>&lt;f=0.44&gt; mm</p> <p>&lt;u=0.78&gt;</p> <p>&lt;Jp=1.32&gt;</p> <p>&lt;laugh=2.36&gt;</p> <p>&lt;u=0.69&gt;</p> <p>&lt;u=0.33&gt;</p> <p>polite to</p> <p>&lt;u=0.51&gt;</p>	<p>up</p> <p>sfp</p> <p>up</p> <p>fp</p> <p>sc</p> <p>up</p> <p>up</p> <p>rs</p> <p>up</p> <p>la</p> <p>up</p> <p>up</p> <p>up</p> <p>rp</p> <p>up</p> <p>sfp</p> <p>la</p> <p>up</p> <p>up</p> <p>fp</p> <p>up</p> <p>rs</p> <p>la</p> <p>fp</p> <p>up</p> <p>la</p> <p>-</p> <p>-</p> <p>-</p> <p>sc</p> <p>rp</p> <p>rp</p> <p>tr</p> <p>-</p> <p>rp</p> <p>sfp</p> <p>up</p> <p>-</p> <p>-</p> <p>-</p> <p>up</p> <p>-</p> <p>-</p> <p>up</p> <p>la</p> <p>up</p> <p>up</p> <p>sc</p> <p>up</p>	<p>Uhhuh. My name is Yasuko Kurono. I have two daughter. Elderly one is twenty-two years old youngest one is twenty years old. I think same age with you. Yeah. So I'm feeling I study with my daughter. Mmhm. My hobby is golf and swimming and tennis and karaoke.</p> <p>I'm very busy!</p> <p>Twice a month.</p> <p>It's lunch.</p> <p>It's eight hundred yen</p> <p>including lunch.</p> <p>And   two hours we we can sing.</p> <p>-</p> <p>-</p> <p>-</p> <p>Uhhuh   yeah.</p> <p>they are friends with swimming pool.</p> <p>Uhhuh.</p> <p>I'm going to Oita.</p> <p>I'm going to go Oita.</p> <p>To my mother-in-law's house.</p> <p>Uhhuh. And stay one night.</p> <p>I will make a supper.</p> <p>She lives alone</p> <p>so</p> <p>Of course.</p> <p>She is very good woman.</p> <p>She is very polite and</p>



<S12 Kindly   to me.	<u=0.81> soft?	up sc	Kindly   to me.
<S12 I like her.	-	-	I like her.
<S12 <laugh=1.00>	<laugh=1.00>	la	
<S12 Yeah for my husband visit <u=0.77> twice	<u=0.77>	up	Yeah for my husband visit twice last year.
> <u=0.30> last year.	<u=0.30>	up	
<S12 <f=0.45> ah <u=0.75> But my <f=0.46> uh I I I	<f=0.45> ah	fp	But I haven't been there maybe three years
> haven't been there <u=1.23> maybe three	<u=0.75> my	up sc	
	<f=0.46> uh	fp	
	I	rp	
	I	rp	
	<u=1.23>	up	
<S12 because <u=0.75> she <u=0.59> she has	<u=0.75>	up	because she live in my house half year.
> some <f=0.33> uh she stayed she live in my	she	rp	
house <u=1.01> <f=0.51> uh ha half year.	<u=0.59>	up	
	she has some	sc	
	<f=0.33> uh	fp	
	she stayed	sc	
	<u=1.01>	up	
	<f=0.51> uh	fp	
	ha	rs	
<S12 Uhuh. To take a surgery	-	-	Uhuh. To take a surgery
<S12 uh her her of of her knees.	uh	sfp	of her knees.
	her	rp	
	her	sc	
	of	rp	
<S12 So <u=1.41> so uh I I don't have to	So	rp	so I don't have to
	<u=1.41>	up	
	uh	sfp	
	I	rp	
	<laugh=0.37>	la	
<S12 go   to her house.	-	-	go   to her house.
<S12 Mm. Mmhm.   For half year.	-	-	Mm. Mmhm.   For half year.
<S12 Mmhm.	-	-	Mmhm.
<S12 Last year.	-	-	Last year.
<S12 Yeah it's a very long time.	-	-	Yeah it's a very long time.
<S12 <laugh=1.08>	<laugh=1.08>	la	-
<S12 Oita is very <u=0.46> convenient <u=1.19> to	<u=0.46>	up	Oita is very convenient to visit.
> visit.	<u=1.19>	up	
<S12 Three hours by car	-	-	Three hours by car
<S12 it   took.	-	-	it   took.

Learner turns (disfluencies in red)	Culled disfluencies	Pruned syllables
<f=0.53> uh My name is Tsuneko Mizumoto. I live in Usukicho <u=0.44> near Hiroki Elementary School. <u=0.42> <f=0.83> uh I		My name is Tsuneko Mizumoto. I live in Usukicho near Hiroki Elementary School. I
<S13 have I have two daughters. <u=0.48>	<f=0.53> uh	fp
> <f=0.75> uh One daughter is a <u=0.33>	<u=0.44>	up
<f=0.96> uh <u=0.53> junior college student.	<u=0.42>	up
<u=0.55> <f=0.82> uh the other is <u=0.61> a	<f=0.83> uh	fp
high school student. <u=3.00> Hobby?	I have	rp
	<u=0.48>	up
	<f=0.75> uh	fp
	<u=0.33>	up
	<f=0.96> uh	fp
	<u=0.53>	up
	<u=0.55>	up

		<f=0.82> uh	fp	
		<u=0.61>	up	
		<u=3.00>	up	
<S13	<f=0.73> uh   I like <f=0.71> <Japlang> I like			
>	<u=0.46> I like <u=0.36> taking a hotspring. I			
	I like taking a bath <u=0.59> <f=0.65> uh uh	<f=0.73> uh	fp	I like taking a hotspring. I like taking a bath
	<u=0.49> <f=0.83> eh onsen. <f=0.53> uh			onsen. I like reading a picture books
	<u=0.64> <f=2.03> mm <u=0.51> I like <clear			
	throat=0.89> <u=0.49> reading a <f=0.92> uh			
	<u=0.49> <f=0.97> mm picture books to to			
		I like	rp	
		<Jp=0.71>	Jp	
		I like	rp	
		<u=0.46>	up	
		<u=0.36>	up	
		I	rp	
		<u=0.59>	up	
		<f=0.65> uh	fp	
		uh	sfp	
		<u=0.49>	up	
		<f=0.83> eh	fp	
		<f=0.53> uh	fp	
		<u=0.64>	up	
		<f=2.03> mm	fp	
		<u=0.51>	up	
		<clear	iv	
		throat=0.89>		
		<u=0.49>	up	
		<f=0.92> uh	fp	
		<u=0.49>	up	
		<f=0.97> mm	fp	
		to	rp	
		to kids.	sc	
<S13	For kids. <u=1.92> E <f=0.75> uh <u=1.39>	<u=1.92>	up	For kids. every week every Monday I do.
>	every <u=0.35> every week every Monday I			
	<u=0.80> I <u=2.29> <f=0.66> mm I do.			
		E	rs	
		<f=0.75> uh	fp	
		<u=1.39>	up	
		every	rp	
		<u=0.35>	up	
		I	rp	
		<u=0.80>	up	
		I	rp	
		<u=2.29>	up	
		<f=0.66> mm	fp	
<S13	Where?	Where?	tr	-
<S13	<f=1.67> uh <u=1.33> Seikyo <u=0.99> At	<f=1.67> uh	fp	Seikyo. At Seikyo in Murasakibaru.
>	Seikyo in Murasakibaru.			
		<u=1.33>	up	
		<u=0.99>	up	
		-	-	
<S13	Yeah.   Seikyo rent us			Yeah.   Seikyo rent us
<S13	<u=0.47> <f=1.07> uh <u=0.59> one small	<u=0.47>	up	one small room.
>	<u=0.34> room.			
		<f=1.07> uh	fp	
		<u=0.59>	up	
		<u=0.34>	up	
		-	-	
<S13	Yeah.			Yeah.
<S13	<f=0.38> uh So so there are many picture	<f=0.38> uh	fp	there are many picture books so they rent us
>	books so <f=1.17> uh they <f=0.99> eh they			for free.
	rent us uh for free.			
		So	rp	
		so	sc	
		<f=1.17> uh	fp	
		they	rp	
		<f=0.99> eh	fp	
		uh	sfp	
<S13	So about <f=1.78> uh ten or twenty	<f=1.78> uh	fp	So about ten or twenty

<S13 kids.	-	-	kids.
<S13 Every time.	-	-	Every time.
<S13 Under fi? Yeah. Yes.	Under fi?	tr	Yeah. Yes.
<S13 Under   five.	Under   five.	tr	-
Mm.   But <f=1.31> uh once a month	<f=1.31> uh	fp	Mm.   But once a month we want to
<S13 <u=0.31> <f=0.82> uh we want to read	<u=0.31>	up	
> <f=0.79> uh <f=1.09> uh <u=0.56>	<f=0.82> uh	fp	
elementary school student	read	rp	
	<f=0.79> uh	rp	
	<f=1.09> uh	rp	
	<u=0.56>	up	
	elementary	rp	
	school student	rp	
<S13 to read a <u=0.34> read a <u=0.44>	to read a	rp	read a elementary school student.
> elementary school student.	<u=0.34>	up	
	<u=0.44>	up	
So   <f=0.54> uh <f=0.64> uh once a month I	<f=0.54> uh	fp	So once a month we have a elementary
<S13 <u=0.47> <f=0.53> uh we have a <u=0.57>			school students hours.
> <f=0.84> uh <u=0.52> we have a <f=0.94> uh	<f=0.64> uh	fp	
<f=0.56> <Japlant> <u=2.82> elementary	I	sc	
school students <u=0.32> hours.	<u=0.47>	up	
	<f=0.53> uh	fp	
	we have a	rp	
	<u=0.57>	up	
	<f=0.84> uh	fp	
	<u=0.52>	up	
	<f=0.94> uh	fp	
	<Jp=0.56>	Jp	
	<u=2.82>	up	
	<u=0.32>	up	
<S13 So s <f=0.66> eh <f=1.43> <Japlant>	s	sc	So we don't use picture book.
> {Subanashi} <f=1.34> uh we we don't use	<f=0.66> eh	fp	
<f=0.78> uh <u=1.02> picture book.	<Jp=1.43>	Jp	
	<f=1.34> uh	fp	
	we	rp	
	<f=0.78> uh	fp	
	<u=1.02>	up	
	<u=0.76>	up	Only storytelling.
<S13 Only <u=0.76> storytelling.	Novel?	tr	
<S13 Novel? mm eh mm	mm	sfp	
	eh	sfp	
	mm	sfp	
<S13 <f=0.88> mm   Only telling.	<f=0.88> mm	fp	Only telling.
<S13 Mm mm mm   just telling.	-	-	Mm mm mm   just telling.
<S13 Yeah yeah   yeah.	-	-	Yeah yeah   yeah.
<S13 I can't.	-	-	I can't.
<S13   Yes.	-	-	Yes.
<S13 Yes.	-	-	Yes.
<S13 Yeah.	-	-	Yeah.
<S13 Traditional   stories <u=0.59> or a picture	<u=0.59>	up	Traditional   stories or a picture book stories.
> book stories.	Animated?	tr	Mm?
<S13 Mm?   Animated?	<f=1.11> uh	fp	Ah! Sometimes.
<S13 Ah! <f=1.11> uh Sometimes.			
I tell <u=0.67> <f=0.87> uh <u=1.08> uh we	I tell	sc	we think not changing the voice
<S13 think <f=1.00> uh <u=0.53> we think <f=0.45>	<u=0.67>	up	
> mm the best <f=1.07> mm <f=1.28> uh not	<f=0.87> uh	fp	
changing <u=0.58> the voice			

	<div>&lt;u=1.08&gt; uh we think &lt;f=1.00&gt; uh &lt;u=0.53&gt; &lt;f=0.45&gt; mm the best &lt;f=1.07&gt; mm &lt;f=1.28&gt; uh &lt;u=0.58&gt; -</div>	<div>up sfp rp fp up fp sc fp fp up -</div>		
<S13	is better.		is better.	
Learner turns (disfluencies in red)		Culled disfluencies		Pruned syllables
<S14	Ah. My name is Yoko Nakashima. <u=0.46>	<u=0.46>	up	Ah. My name is Yoko Nakashima. I'm twenty
>	<f=0.55> mm I'm twenty years old.	<f=0.55> mm	fp	years old.
<S14	uh Twenty?   Ah <u=0.93> no.	uh	sfp	Twenty? No.
		Ah	as	
		<u=0.93>	up	
		-	-	Twenty.
<S14	Twenty.			
<S14	I'm uni <f=0.51> uh <f=0.53> <Japlang> {eto}	uni	rs	I'm Kagoshima University student in
>	<u=0.80> Kagoshima University student in first ah second <laugh=0.83>	<f=0.51> uh <Jp=0.53> <u=0.80> first ah second <laugh=0.83> - Mm. Ah - -	fp Jp up sc sfp rp la - sfp sfp - -	
<S14	second grade.			second grade.
<S14	Mm. Ah one.			one.
<S14	And			And
<S14	Ah.			Ah.
<S14	I'm   studying <u=1.05> <f=0.71> eh <u=0.62>	<u=1.05>	up	I'm   studying medi cine?
>	medi medi <u=0.93> medici <u=0.67> cine?	<f=0.71> eh <u=0.62> medi medi <u=0.93> ci <u=0.67> <u=1.17> <f=0.63> uh Med med - And <u=0.63> belong ah <u=0.30> - - <f=0.69> uh <u=3.01> Ah. <u=0.75> <f=0.81> uh I I <u=1.03> I	fp up rs rs up rs up up fp rs rs rp sfp up - - fp up sfp up fp rp rp up sc	
<S14	And <u=1.17> <f=0.63> uh			And
<S14	Med med			-
<S14	Medical.			Medical.
<S14	And			-
<S14	And   <u=0.63> belong ah I belong to			And I belong to volleyball club
>	<u=0.30> volleyball club			
<S14	in medical course			in medical course
<S14	team.			team.
<S14	<f=0.69> uh <u=3.01> Ah. And live <u=0.75>			And live near here.
>	near here.			
<S14	<f=0.81> uh I I <u=1.03> I <f=0.63> uh			-
>	<f=0.66> uh? Did you like?			

<S14 I graduate from <u=0.51> <f=0.84> uh

<S14 It | <u=0.64>

<S14 is <u=0.91>

<S14 in Saga

<S14 pre pre

<S14 No I'm I lived in <u=0.34> Fukuoka city.

<S14 But I <u=1.13> <f=1.27> <Japlang> <u=0.49>  
> I went to <u=0.34> Saga

<S14 everyday.

<S14 Yeah. <laugh=0.73> <u=0.72> <f=0.54> uh I  
> went to <u=0.53> Kitakyushu

<S14 to | play volleyball game.

<S14 mm It <u=0.35> it is very big <u=0.78>  
> <f=0.88> uh game.

<S14 Tour tournament.

So <f=0.75> <inhale> <u=0.66> <f=0.84> mm  
<S14 <u=0.72> last week weekend <u=0.75>  
> <f=0.41> mm we went <f=0.64> uh we went to  
Kitakyushu by bus.

<S14 And <u=1.48> but <u=0.82> our team  
> separate <u=1.18> separate <u=0.96>  
<f=0.47> mm <u=2.17> <f=0.41> uh grade.

And <u=1.58> only <u=1.24> three people  
<S14 <u=0.71> went to <f=0.36> uh wen <u=0.99>  
> <laugh=0.46> <u=4.49> went <u=2.08> only  
three people went to <u=1.30> there.

<f=0.63> uh	fp
<f=0.66> uh?	fp
Did you like?	tr
<u=0.51>	up
<f=0.84> uh	fp
<u=0.64>	up
<u=0.91>	up
-	-
pre	rs
pre	rs
I'm	sc
<u=0.34>	up
I	rp
<u=1.13>	up
<Jp=1.27>	Jp
<u=0.49>	up
<u=0.34>	up
-	-
<laugh=0.73>	la
<u=0.72>	up
<f=0.54> uh	fp
<u=0.53>	up
-	-
mm	sfp
It	rp
<u=0.35>	up
<u=0.78>	up
<f=0.88> uh	fp
Tour	rs
<f=0.75>	fp
<inhale>	fp
<u=0.66>	up
<f=0.84> mm	fp
<u=0.72>	up
week	rs
<u=0.75>	up
<f=0.41> mm	fp
we went	rp
<f=0.64> uh	fp
And	sc
<u=1.48>	up
<u=0.82>	up
separate	rp
<u=1.18>	up
<u=0.96>	up
<f=0.47> mm	fp
<u=2.17>	up
<f=0.41> uh	fp
<u=1.58>	up
only three people	rp
went to	up
<u=1.24>	up
<u=0.71>	up
<f=0.36> uh	fp
wen	rs
<u=0.99>	up
<laugh=0.46>	la
<u=4.49>	up

I graduate from Tomeikan.

It

is

in Saga

No I lived in Fukuoka city.

But I went to Saga

everyday.

Yeah. I went to Kitakyushu

to | play volleyball game.

it is very big game.

tournament.

So last weekend we went to Kitakyushu by bus.

but our team separate grade.

And only three people went to there.

	went	rp	
	<u=2.08>	up	
	<u=1.30>	up	
<S14 And <u=0.89> stay <u=3.01> stay hotel	<u=0.89>	up	And stay hotel
	stay	rp	
	<u=3.01>	up	
<S14 and   <u=0.99> we <u=0.55> we play volleyball. <u=0.47> But <u=0.53> we lost. > <u=1.26> <f=0.66> uh	<u=0.99>	up	and we play volleyball. But we lost.
	we	rp	
	<u=0.55>	up	
	<u=0.47>	up	
	<u=0.53>	up	
	<u=1.26>	up	
	<f=0.66> uh	fp	
<S14 No <f=0.65> um	<f=0.65> um	fp	No
<S14 No <f=0.35> uh	<f=0.35> uh	fp	No
<S14 <f=0.45> um <u=0.95> three member three member three member. >	<f=0.45> um	fp	three member three member three member.
	<u=0.95>	up	
<S14 Yes   yes.	-	-	Yes   yes.
<S14 Uh no se <u=0.39> separate room.	Uh	sfp	no separate room.
	se	rs	
	<u=0.39>	up	
	-	-	Only one.
<S14 Only one.	And	rp	and we lost almost game.
<S14 And <u=0.95> and <u=0.64> we lost the game <u=0.63> <f=0.81> uh almost game. >	<u=0.95>	up	
	<u=0.64>	up	
	the game	sc	
	<u=0.63>	up	
	<f=0.81> uh	fp	
<S14 <f=0.83> uh Three game.	<f=0.83> uh	fp	Three game.
<S14 And <u=3.43> one one game we <u=0.38>	<u=3.43>	up	And one game we win
	one	rp	
	<u=0.38>	up	
<S14 but <u=1.30> two game <u=0.37> we lost.	<u=1.30>	up	but two game we lost.
	<u=0.37>	up	
<S14 And <u=2.01> but <u=1.31> <f=0.67> uh <u=1.99> man men team >	And	sc	but men team
	<u=2.01>	up	
	<u=1.31>	up	
	<f=0.67> uh	fp	
	<u=1.99>	up	
	man	sc	
<S14 win the game <u=1.60> and <u=1.94> <f=1.67> <Japlang> <u=0.44> and <u=2.32> >	<u=1.60>	up	win the game and four
	and	rp	
	<u=1.94>	up	
	<Jp=1.67>	Jp	
	<u=0.44>	up	
	<u=2.32>	up	
	four	rp	
<S14 Four.	-	-	Four.
<S14 Yeah   yeah.	-	-	Yeah   yeah.
<S14   Fourth.	Fourth.	tr	-

Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<S15 So   so so so that guy's the top uh chess	So	rp	so that guy's the top chess player
	so	rp	
	so	rp	
	uh	sfp	
	-	-	
<S15 in   the world?			in   the world?
<S15 Oh. Even top <u=0.37> chess player	<u=0.37>	up	Oh. Even top chess player cannot win the
> <u=0.51> <f=0.69> uh cannot win the			game.
	<u=0.51>	up	
	<f=0.69> uh	fp	
	<u=0.87>	up	
<S15   Ah.	-	-	Ah.
<S15 Ah some   games.	-	-	Ah some   games.
<S15   Oh.	-	-	Oh.
<S15 Oh   really?	-	-	Oh   really?
<S15 Yeah. One   one month ago or something the	One	rp	Yeah. one month ago or something for
> the for Japanese <f=0.44> uh shogi			Japanese shogi
	the	rp	
	the	sc	
	<f=0.44> uh	fp	
<S15 The n not a t top uh player	The	sc	not a top player
	n	rs	
	t	rs	
	uh	sfp	
<S15 But a yeah so-so player a professional	yeah	sfp	But a so-so professional shogi middle class
> <f=0.56> uh shogi <u=0.41> player middle			player.
	player	rp	
	a	rp	
	<f=0.56> uh	fp	
	<u=0.41>	up	
	player	rp	
<S15 <f=0.96> uh <f=1.02> uh <f=0.61> uh	<f=0.96> uh	fp	played the game with the computer. Of course
> <f=0.75> uh anyway played the game with the			the human
computer. <u=0.79> Of course the the human			
	<f=1.02> uh	fp	
	<f=0.61> uh	fp	
	<f=0.75> uh	fp	
	anyway	sfp	
	<u=0.79>	up	
	the	rp	
	win.	sc	
<S15 <laugh=0.65>   Won.	<laugh=0.65>	la	Won.
<S15 Yeah but any anyways <f=0.61> uh about the	any	rs	Yeah but anyways about the Japanese shogi.
> Japanese shogi.			
	<f=0.61> uh	fp	
<S15 About   a the couple of years ago the the	a	sc	About the couple of years ago the human
> anyway the human easily defeats the			easily defeats the computer.
	the	rp	
	the	rp	
	anyway	sfp	
<S15 But   uh this time uh it takes <f=0.86> uh not	uh	sfp	But this time not so easily.
> so   easily.			
	uh	sfp	
	it takes	sc	
	<f=0.86> uh	fp	
<S15 <f=0.98> mm Anyway our Prime Minister	<f=0.98> mm	fp	Anyway our Prime Minister
<S15 went to the United States.	-	-	went to the United States.
<S15 Now he's in uh United States still?	uh	sfp	Now he's in United States still?
<S15 He he how to say <u=0.52> he apologized	He	rp	he apologized what he said before
> <u=0.49> what he said before			
	he	rp	
	how to say	as	
	<u=0.52>	up	
	<u=0.49>	up	
<S15 about <f=0.72> uh <u=0.55> about <f=0.88>	about	rp	about comfort women.
> uh <f=0.53> uh <f=0.55> uh comfort women.			
	<f=0.72> uh	fp	
	<u=0.55>	up	

	<f=0.88> uh	fp	
	<f=0.53> uh	fp	
	<f=0.55> uh	fp	
<S15	Yeah previously he said <f=0.73> uh <f=0.94>		Yeah previously he said there is no
>	uh there is no enforcement.	<f=0.73> uh	enforcement.
		<f=0.94> uh	
<S15	Enforcement.	-	Enforcement.
<S15	In case of the <u=0.67> comfort women.	<u=0.67>	In case of the comfort women.
<S15	Military comfort women.	-	Military comfort women.
<S15	Yeah yeah.	-	Yeah yeah.
<S15	Mhm.	-	Mhm.
<S15	Mhm.	-	Mhm.
<S15	Yeah but this time he he apologized.	he	Yeah but this time he apologized.
<S15	Yeah   du during uh in the United States also.	du	Yeah during in the United States also.
		uh	
		Mm	
<S15	Mm <laugh=1.84> Any anyway now now the	sfp	anyway now the American people got mad.
>	the American people got mad.	<laugh=1.84>	
		Any	
		now	
		the	

Learner turns (disfluencies in red)		Culled disfluencies		Pruned syllables
<S16	Ah but unh but it uh I think it might be very	Ah	sfp	but I think it might be very difficult because
>	difficult because you said uh the the rec recog			you said the recognizing language or speech
	recognizing recognizing language language or			
	sp speech			
		but	rp	
		unh	sfp	
		it	sc	
		uh	sfp	
		uh	sfp	
		the	rp	
		rec	rs	
		recog	rs	
		recognizing	rp	
		language	rp	
		sp	rs	
	is very difficult uh especially uh the <u=0.71>			
<S16	<f=0.65> uh many many people or a lot of	uh	sfp	is very difficult especially each people have
>	people have <u=0.50> uh each each people			each   pronunciation.
	have each   pronunciation.			
		uh	sfp	
		the	sc	
		<u=0.71>	up	
		<f=0.65> uh	fp	
		many	rp	
		many people	sc	
		or a lot of people	sc	
		have		
		<u=0.50>	up	
		uh	sfp	
		each	rp	
	So <f=0.62> uh your in <u=0.36> your			
	research <f=0.72> uh <u=0.30> you record			
<S16	<f=0.51> uh uh people's <f=0.32> uh voice	<f=0.62> uh	fp	So in your research you record people's voice
>	and then <f=0.58> eh I uh I I think your your			and then I think your purpose is make your
	purpose is uh recog <f=0.57> uh <u=0.57> i			computer recognize your students' voice.
	<u=0.44> uh my uh make uh the your			
	computer recognize the your students' voice.			
		your	sc	
		<u=0.36>	up	
		<f=0.72> uh	fp	
		<u=0.30>	up	
		<f=0.51> uh	fp	
		uh	sfp	
		<f=0.32> uh	fp	
		<f=0.58> eh	fp	



<S16 Mm each each student. But each

<S16 student have <u=0.39> have each voice  
> <laugh=0.64>

<S16 each dialect

<S16 so it's very difficult.

<S16 eh Recently I I heard uh such a same same  
> system ha had <u=0.45> <f=0.45> uh  
<u=0.51> <f=0.92> <Japlang> German army |

<S16 Mm. <f=0.91> <Japlang>

<S16 Hitler's ar army has the same system.

<S16 <f=1.14> <Japlang> Auschwitz <f=0.31>  
> <Japlang> Ausch

<S16 | Auschwitz?

<S16 How can I say? <f=0.34> uh <f=1.71>

Ah. Concentration camp uh the some some  
<S16 womans wo womans <f=0.81> <Japlang> stay  
> or <u=0.63> <f=0.86> <Japlang> <f=0.44> uh  
were in a <u=0.37> concentration camp

and uh uh Nazi <f=0.33> uh soldiers selected  
<S16 some wo womans I don't know the conditions  
> was selected and <f=0.52> uh <f=0.34> uh to  
be <f=0.53> uh how can I say?

I	rp
uh	sfp
I	rp
your	rp
uh	sfp
recog	sc
<f=0.57> uh	fp
<u=0.57>	up
i	sc
<u=0.44>	up
uh	sfp
my	sc
uh	sfp
uh	sfp
the	sc
the	sc
Mm	sfp
each	rp
have	rp
<u=0.39>	up
<laugh=0.64>	la
-	-
-	-
eh	sfp
I	rp
I	rp
uh	sfp
same	rp
ha	rs
<u=0.45>	up
<f=0.45> uh	fp
<u=0.51>	up
<Jp=0.92>	Jp
Mm.	sfp
<Jp=0.91>	Jp
ar	rs
<Jp=1.14>	Jp
Auschwitz	rp
<Jp=0.31>	Jp
Ausch	rs
-	-
How can I say?	as
<f=0.34> uh	fp
<Jp=1.71>	Jp
Concentration	tr
camp	tr
uh	sfp
the	sc
some	rp
womans	rp
wo	rs
<Jp=0.81>	Jp
stay or	sc
<u=0.63>	up
<Jp=0.86>	Jp
<f=0.44> uh	fp
<u=0.37>	up
uh	sfp
uh	sfp

each student. But each

student have each voice

each dialect

so it's very difficult.

Recently I heard such a same system had  
German army or

Hitler's army has the same system.

| Auschwitz?

Ah. some womans were in a concentration  
camp

and Nazi soldiers selected some womans I  
don't know the conditions was selected to be

	<f=0.33> uh	fp	
	wo	rs	
	and	sc	
	<f=0.52> uh	fp	
	<f=0.34> uh	fp	
	<f=0.53> uh	fp	
	how can I say?	as	
<S16 <f=0.39> uh	<f=0.39> uh	fp	-
<S16 Yes.	-	-	Yes.
<S16 And <f=0.35> uh recently very recently such a	<f=0.35> uh	fp	And very recently such a
> form	recently	sc	
	form	rs	
<S16 formal form was uh found.	uh	sfp	formal form was found.
<S16 Mm. So <u=0.31> the system <u=0.57>	<u=0.31>	up	Mm. So the system was made by the army or
<f=0.33> mm <u=0.39> was made made by	<u=0.57>	up	public
> the army or <u=0.67> pu public public public	<f=0.33> mm	fp	
	<u=0.39>	up	
	made	rp	
	<u=0.67>	up	
	pu	rs	
	public	rp	
	public	rp	
<S16 <f=0.94> <Japlant>	<Jp=0.94>	Jp	-
<S16 Mm.	-	-	Mm.

Learner turns (disfluencies in red)	Culled disfluencies		Pruned syllables
<S17 Are you talking about <f=0.61> uh shogi	<f=0.61> uh	fp	Are you talking about shogi computer?
> computer?	-	-	
<S17 Recently?	-	-	Recently?
<S17 Yeah   yeah. I saw the program	-	-	Yeah   yeah. I saw the program
by TV. Very interesting. <u=0.99> <f=0.61>	<u=0.99>	up	by TV. Very interesting. Japanese champion
<S17 mm <u=1.35> Japanese <u=0.70> <f=0.97>	<f=0.61> mm	fp	win
> mm <u=0.34> champion win	<u=1.35>	up	
	<u=0.70>	up	
	<f=0.97> mm	fp	
	<u=0.34>	up	
<S17 the   computer.   <laugh=1.09>	<laugh=1.09>	la	the   computer.
<S17   One of champion?	-	-	One of champion?
<S17 No. Oh? Middle   class?	-	-	No. Oh? Middle   class?
<S17 Yeah.	-	-	Yeah.
<S17 Unh. <f=0.51> uh ryugo or something.	<f=0.51> uh	fp	Unh. ryugo or something.
<S17 Mm.	-	-	Mm.
<S17 Mm.   Ma	Ma	sc	Mm.
<S17 not main. Just shogi. Mm. <u=0.33>   Very	<u=0.33>	up	not main. Just shogi. Mm. Very strong.
> strong.			
Mm. But I l'm very interested that <f=0.55> uh	I	rp	Mm. But I'm very interested that the producer
<S17 <u=0.43> the <u=0.71> producer of computer	<f=0.55> uh	fp	of computer program don't know about shogi
> program <u=0.51> <f=0.75> uh don't know	<u=0.43>	up	much.
about shogi much.	<u=0.71>	up	
	<u=0.51>	up	
	<f=0.75> uh	fp	
<S17 Very little. <laugh=0.99> Yeah. But he write a	<laugh=0.99>	la	Very little. Yeah. But he write a very
> very <u=0.31> complicated <u=0.41> program	<u=0.31>	up	complicated program
	<u=0.41>	up	
<S17 and defeated many <laugh=0.68> <u=1.09>	<laugh=0.68>	la	and defeated many man.
> eh man.	<u=1.09>	up	
	eh	sfp	

<S17 >	So very <f=0.47> mm became very famous. <u=0.31> So <f=0.39> <inhale> Japanese professional sho shogi. Shogi?	very sc	So became very famous. So Japanese professional
		<f=0.47> mm <u=0.31> <f=0.39> sho shogi. Shogi?	fp up fp rs rp as
<S17	Shogi association?	association?	as Shogi
<S17 >	Association's <f=0.39> uh president <f=0.92> uh proposed <u=0.61> please some please someone anyone <laugh=0.42> try to <u=0.34> defeat the program.	<f=0.39> uh	fp Association's president proposed please someone anyone try to defeat the program.
		<f=0.92> uh <u=0.61> please some <laugh=0.42> <u=0.34>	fp up rs la up
<S17 >	And he elected <f=0.66> uh <f=0.51> eh a <f=0.88> mm a little bit young <u=0.99> young <f=1.03> uh powerful <u=1.19> player.	<f=0.66> uh	fp And he elected a little bit young powerful player.
		<f=0.51> eh a <f=0.88> mm young <u=0.99> <f=1.03> uh <u=1.19> -	fp rp fp rp up fp up -
<S17	Professional.	-	- Professional.
<S17 >	<f=0.78> mm And he <u=0.72> he himself <f=0.52> uh tried <f=0.48> mm and researched the program many times by	<f=0.78> mm	fp And he himself tried and researched the program many times by
		he <u=0.72> <f=0.52> uh <f=0.48> mm -	rp up fp fp -
<S17	computer	-	- computer
<S17	and learned his behavior   or	-	- and learned his behavior   or
<S17	Mm.	-	- Mm.
<S17	Mm yeah yeah.	-	-   Mm yeah yeah.
<S17 >	And <f=0.46> <inhale> <u=0.87> until <f=0.65> uh middle or last <f=0.59> uh phase	<f=0.46> <inhale> <u=0.87> <f=0.65> uh <f=0.59> uh	fp up fp fp
<S17 >	he was <f=0.62> uh <u=0.44> pushed pushed pushed. <u=0.62> But last <f=0.70> uh phase <u=0.75> he <u=0.46> changed the <f=0.54> uh <u=0.66> <f=0.46> mm <u=0.32> the <u=0.39> mode.	<f=0.62> uh	fp he was pushed pushed pushed. But last phase he changed the mode.
		<u=0.44> <u=0.62> <f=0.70> uh <u=0.75> <u=0.46> the <f=0.54> uh <u=0.66> <f=0.46> mm <u=0.32> <u=0.39> <laugh=0.60>	up up fp up up rp fp up fp up up la
<S17	Mm. <laugh=0.60>	<laugh=0.60>	la Mm.
<S17 >	But i i <u=0.51> in the <u=0.89> <f=1.47> <Japlang> mid uh interval	i i <u=0.51> <u=0.89>	rs rs up up But in the interval

	<Jp=1.47>	Jp	
	mid	sc	
	uh	sfp	
<S17 champion very   <laugh=2.04>	<laugh=2.04>	la	champion very
<S17 Sweating. <laugh=1.12> Wh why do why do	Sweating.	tr	why do you so strong?
> <u=0.31> you so strong?   <laugh=1.29>	<laugh=1.12>	la	
	Wh	rs	
	why do	rp	
	<u=0.31>	up	
	<laugh=1.29>	la	
<S17 Plain, plain.	-	-	Plain, plain.
<S17 Yeah.	-	-	Yeah.

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