Picking the ripe cherry: Extract selection in qualitative research

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Abstract

Qualitative researchers often analyze far more data than they can reasonably include in an article, and so must select extracts to present. The basis for extract selection is often unclear, opening the research to potential bias and threatening trustworthiness. Where researchers select extracts that are illustrative of specific themes, there is limited scope for the reader to evaluate these against the larger data set. In this paper, we present a mixed-methods approach to extract selection that combines a corpus-based plot analysis of keywords with the qualitative analysis. This is demonstrated using data from feedback on teaching practice in a teacher-training course. After identifying the keywords for the data set, the top keywords are plotted for their occurrence through the data. Extracts are selected based on the co-occurrence of these keywords. This method allows objective extract selection while also ensuring that the extracts are typical of the data set.

1. Introduction

Researchers following a qualitative paradigm are frequently faced with large amounts of data that cannot be easily summarized for presentation in a published article. With word count restrictions militating against inclusion of large stretches of text, the researcher is forced into selecting short, representative extracts to provide the reader with sufficient insights into the data to support the argument.

The process of extract selection constitutes a very small part of the research process. Yet because it is possibly the readers' only glimpse at the data, the procedure for selecting extracts is worth problematizing. How exactly are these extracts selected? Is the extract selected representative of the data as a whole, or has it been selected because it serves a particular purpose in the researcher's argument? It may be tempting for a researcher to select an extract that most represents the paper's position. This kind of purposive manipulation of the data to fit theory is 'cherry-picking' (Wodak, 2011). Such cherry-picking of data risks researcher bias, and undermines the legitimacy of the research and its findings (Tenorio, 2011). One hopes a researcher would avoid deliberate cherry-picking, but the failure to follow, or state, a principled approach to the selection of extracts leads potentially to misgivings about the research's trustworthiness and credibility (Brown and Rodgers, 2002).

In this paper, we outline a technique for principled extract selection based on elements in the data itself. To demonstrate the technique, we start by cherry-picking two extracts from the same data which serve to demonstrate contradictory arguments. Then, using corpus linguistics tools, we show how extracts can be objectively selected for presentation to help minimize researcher bias and increase trustworthiness of published articles.

2. Context

The research from which the data is taken focused on elements of authoritativeness in trainer discourse during the feedback following observed teaching practice in a pre-service teacher-training course. Such feedback between the trainee teacher and the observing trainer

takes the form of a dialogue based on the specific culturally and socially bound event of the observed lesson, making the theoretical framework of dialogicity relevant for its analysis (Copland, Ma and Mann, 2009; Farr, 2011).

Dialogicity proposes that all meaning arises from the contact of two or more 'voices' in the form of a dialogue (Bakhtin, 1986; Gerson, 2006). Communication which is dialogic can be said to be *addressive* (it is directed towards someone), *responsive* (it is a response to a previous utterance, and itself leads to a response) and *sequential* (the meaning and impact of an utterance is relevant to its position in the sequence of the dialogue) (Linell, 2010). If these elements are missing or suppressed, the communication is authoritative (or monologic) (Nystrand, 1999). Whereas dialogic communication co-constructs understanding through a chain of meaning in which every speaker (and hearer) brings valuable alternative viewpoints, authoritative discourse insists on a single truth, imposed hierarchically, dispelling the voice of the 'other' (Gerson, 2006).

Current approaches to teacher training which follow sociocultural theories promote reflection as a tool for teacher development (Calderhead and Gates, 2004; Farrell, 1999). Reflection is potentially facilitated by a dialogic treatment if the trainer's feedback is collective, supportive and jointly constructed (Copland and Mann, 2010). Authoritative feedback, which is predetermined and imposed, ignores the co-construction of the trainees' understanding of the lesson, underestimates the value of the reflective process, and strives to impose a single truth (the trainers' views about the lesson) through transmission.

Classifying discourse as either dialogic or authoritative implies a dichotomy that oversimplifies the complexities of communication. Instead, it may be useful to consider variations in discourse as being on a continuum from more dialogical to more authoritative. Such a continuum, developed by Al Mahrouqi (2010) for analysis of teacher talk in science classrooms, serves as the basis for analysis of feedback on teaching practice using specific elements within the discourse (Louw, Watson Todd and Jimarkon, forthcoming).

Using this continuum, we investigate the dialogicity of trainer talk in feedback following observed teaching practice in an intensive pre-service TESOL programme. Our focus is Tom, one of four teacher trainers, giving feedback to two trainee teachers: Patsy, from England and in her early twenties, and Cliff, an Australian in his late forties. Pseudonyms are used, and informed consent was received from all participants.

This observed lesson is on day 14 of the 20-day course. The entire conference was recorded and transcribed for close analysis. Transcription conventions are presented in Table 1. The conference is 37 minutes long, includes a total of 480 turns and 6428 words.

Table 1	Transcription conventions
then. I	pause of less that one second
did..	a pause between 1 and 2 seconds
[3.2]	long pauses (in seconds)
There:	lengthened sound
tha-	false start
was=	interrupted turn
{yes	overlapping speech
(cough)	extra-linguistic information
"now start"	quoted speech

The analysis explores the dialogic nature of Tom's feedback. An argument can be made that all trainer-led feedback is, by nature, authoritative, and that such authoritativeness is essential for the trainees who lack experience and depend on the guidance provided by the trainer as expert (Copland, 2012; Farrell, 2007; Hyland and Lo, 2006). The opposing position argues that trainee reflection is crucial for meaningful trainee development (Fanselow, 1988; Freeman, 1990), and the dialogic treatment of trainee talk can facilitate this development (Copland and Mann, 2010). Using the data from session 14, we demonstrate that through the process of cherry picking extracts for presentation to the reader, Tom's feedback can be characterized as being either authoritative or dialogic, thus allowing a single data source to serve both arguments.

3. Cherry picking

3.1. Extract 1: Tom is authoritative

Our first extract provides evidence from the data for an argument favoring the view that Tom's feedback is high in authoritativeness.

393	Tom	Yeah alright um.. also try to make it a little more open don't give them. the language don't give them the script
394	Patsy	Yeah
395	Tom	Read this script rather just give them the prompt and let them:. apply it in their own ways and as like and that is more likely to happen then "so you have a baby this. week ah yeah well I might er"
396	Patsy	{Yeah
397	Tom	{you know and you actually end up saying things like "well I might" er and I and you said "er no I won't" and I said "are you sure" and you said "well okay well I might not" you know and that's
398	Patsy	{Yeah
399	Tom	{don't script it
400	Patsy	{Yeah
401	Tom	{And essentially never give a full sentence. something that they can just cheat and go "I'm just going to copy this and stick to it" because more often than not they will

There is little that can be described as dialogic in Tom's feedback. The extract starts in turn 393 with a framing move ('Yeah alright um'), bringing to an end to the previous transaction (not included) and calling attention to Tom's upcoming advice on Patsy's lesson. This is given as a series of imperatives, softened initially ('try to' in turn 393) but ending with a boldly stated generalized rule (in turn 401). During this time, Patsy's contribution is limited to minimal response tokens, repeatedly overlapped by Tom's continued counsel.

Tom's highly authoritative feedback to Patsy is single-authored, using examples from his own experience. His voice here is highly evaluative, offering prescribed and predetermined directives on Patsy's performance in the lesson and drawing nothing but agreement out of her in the process. Since the discourse limits Patsy's contributions, Tom's discourse is sequential only to itself, and though we see that Tom is specifically addressive to the issue of Patsy's material and her understanding of the consequences of these flaws, such an understanding is not co-constructed through the dialogue, and Tom's continued advice lacks responsivity to Patsy's own possible contributions.

Based on this extract, we have grounds for arguing that Tom provides highly authoritative feedback. In the absence of any further evidence, the dialogic possibilities within Tom's feedback are neglected, leaving the reader potentially misinformed.

3.2. *Extract 2: Tom is dialogic*

The second extract, taken from the same feedback conference, supports an opposing argument favoring the dialogic nature of Tom's feedback.

404	Cliff	I would like to get difficult words like astrology (laugh) and elicit it as fast as I did today
405	Tom	I would have actually picked that as well for yours that {that eliciting
406	Cliff	{Because because that I mean that that all comes that's that was a very special moment for me er
407	Tom	{So it was
408	Cliff	{it was try trying to get the word special or trying to get the word journey out of an American was=
409	Tom	(cough) But the the reason why it worked here is because you built up to that
410	Cliff	{Mm
411	Tom	{if you had have gone straight. the first word you tried to get astrology I don't think you would have got it
412	Cliff	{Mm
413	Tom	{but because of this concept of.. space
414	Cliff	Mm
415	Tom	Was already here {it was easy
416	Cliff	{But also I mean as- astrology {the the the the
417	Tom	{And the key questions you asked
418	Cliff	Yeah the break up of the the word astrology {it's made up of two words
419	Tom	{Helped a lot yeah
420	Cliff	"What do you think this one means okay what {do you think that one is"
421	Tom	{Okay it's good I'd you know I'd pick that as a recreate
422	Cliff	It took.. it took them er you know er a couple of time which was times which was good because you could see I could see the cogs {turning
423	Tom	{And: you refined your question each time which made it a bit easier for them and

In answer to Tom's question about which aspect of the lesson he feels was particularly successful (not included here), Cliff indicates that the successful eliciting of vocabulary is something he would like to see happen again in his next class (turn 404). Tom responsively approves Cliff's choice (turns 405 and 421), and adds for Cliff some pedagogical grounding for the reason behind his success (the sequence from 409 to 415, as well as turns 417 and 423). Tom's turns are sequential to Cliff's choice, and also highly addressive, not only to Cliff as a way of providing approbation for his success, but also addressive as trainer to trainee, seeking

ways to provide relevant learning opportunities through the feedback. The high incidence of overlapping speech indicates Tom and Cliff's high responsivity to each other's turns as Cliff builds his reflection. Notice the even distribution of turns between trainer and trainee (Farr, 2011), with Tom neither dominating nor allowing domination, but rather co-constructing understanding and meaning through the unfolding of the dialogue.

This extract shows Tom's feedback as highly dialogic. He allows the trainee control over the feedback discourse, but expands and modifies the trainee's reflection to co-author pedagogical insights.

4. A principled approach to extract selection

We have demonstrated, then, that the same data can be used to demonstrate an argument for diametrically opposed readings of Tom's feedback, depending on the specific selection of the extracts. The analysis of these extracts serves to demonstrate the bias leading from cherry picking, potentially undermining the trustworthiness and credibility of the research.

What is needed is a principled approach to extract selection. The criterion for such a selection is that it may be considered to be 'typical' of Tom's feedback discourse. Tom's lexical choices provide the basis for finding such an extract. In the following section we will demonstrate how lexical frequencies may guide our search for an extract that typifies the trainer's discourse, and therefore serves as an appropriate extract for selection.

We start with a corpus analysis of the data. In our data analysis, we used AntConc (Anthony, 2006), a freeware corpus tool. Using the feedback conferences of the other three trainers as a reference corpus, ten keywords were generated for Tom's feedback (Table 2). Keywords are lexical items with high relative frequencies, or 'keyness', making the word salient in terms of the statistical likelihood of its occurrence and thereby providing insights into speakers' lexical choices (Baker, 2010). We may consider these keywords, then, to typify Tom's specific style and approach to the management of the feedback discourse.

Table 2 Top ten keywords for Tom's feedback

Rank	Frequency	Keyness	Keyword
1	291	50.515	like
2	116	31.192	class
3	33	24.694	focus
4	410	24.248	know
5	1343	23.993	I
6	78	22.129	questions
7	26	20.753	future
8	16	19.728	statement
9	265	19.624	okay
10	78	19.569	kind

Before continuing, we need to confirm that these keywords serve our purposes. To reiterate, the goal of our research was to determine the dialogic nature of Tom's feedback, for which we needed to find keywords that typify the level of dialogicity within his discourse. The keywords, therefore, should serve both the purposes of identifying the 'typical' in Tom's discourse, and also shed light on the dialogic functions of his feedback.

To check the relevance of the initial keywords for these two purposes, we turn to the concordance lines. To illustrate this checking process, four examples are given here. The first example is the keyword 'questions'. We may predict that this keyword refers to a focus in Tom's discourse on the use of questions in the trainees' lessons, making it useful as an insight into the content of Tom's feedback. The concordance for this keyword provides evidence of this (Table 3).

Table 3 Concordance of the keyword 'questions' from Tom's feedback

1	y okay i am going to er focus on prepping the the	questions	that i need to get the language from them as quic
2	rd you would want three get fired yeah three	questions	per word yeah okay and you might get the word on
3	mple you would s you would say after you got some	questions	back some answers back and then you would start t
4	rs back and then you would start to ask them some	questions	about the answers that they would given from the
5	that i used to do mm and let them ask you some	questions	and you could have actu that could have been part
6	t is the only thing er 2 1 but i mean i think the	questions	i was really glad that they you know they were ta
7	um the easiest way to do that is going to be ask	questions	like when you when you explain to them what you w
8	h if they do rather than do you understand ask a	questions	like cough um so who will you ask or how many peo
9	ny people or a question that or do you have any	questions	n not a yes or no question that one they usually
10	t all just sat and waited so kind of direct your	questions	to the group to the class not to an in individual

The concordance lines indicate that, compared with the other trainers, Tom prioritizes questioning as an important issue in teaching and is therefore a focus for feedback. Although this keyword does not show anything directly about dialogicity, it is still clearly typical of Tom and distinguishes him from the other trainers, and therefore is relevant to how he gives feedback. On this basis we will include 'questions' as one of the keywords to look for in our extract.

Our second example is the keyword 'I', which suggests greater self-reference or the expression of Tom's own opinion, making it relevant to our dialogic analysis. Again, we can confirm this with the concordance lines from the feedback data (Table 4).

Table 4 Concordance of the keyword 'I' from Tom's feedback

1	three of four minutes to run through that okay	i	am just going to meet somebody okay that is good
2	it is actually not possible to be prepared enough	i	mean you could have spent yeah like i think tha
3	ole thing so er that is the only thing er 2 1 but	i	mean i think the questions i was really glad that
4	n things like when i handed out the sheets it was	i	just kind of needed to say okay do do this and um
5	really care but that is for me for me personally	i	find that well at the beginning they are they
6	h thing they didnt understand no such thing er so	i	had to they he asked me um or several people aske
7	try to get glance around because a lot of times	i	noticed that er some of the students may have und
8	lesson so it got away from me that way well yeah	i	noticed that the point where you lost time was in
9	that was yeah that is alright yeah even though	i	dont know if they have ever seen one before but y
10	servers will just give you your dedicated section	i	give you a bit longer simply because i am around

These concordance lines show the use of 'I' in Tom's corpus occurs in his housekeeping (lines 1 and 10), and to recount his own experience, as in the case of lines 4 and 5, where Tom is talking through how he handled a problem that occurred in the lesson. More interestingly from a dialogic perspective, 'I' forms part of Tom's mitigation of suggestions (lines 2 and 3), and collocated with 'notice' (in lines 7 and 8) indicates his use of evidence from the lesson as a source of feedback, consistent with the principles of collaborative supervision (Randall and

Thornton, 2001). This keyword, therefore, provides some useful insights into the nature of Tom's feedback and its dialogic nature, and is worth including in our search for a suitable extract.

Turning to a more problematic case as our third example, the keyword 'class'. In the context of the feedback, 'class' may be synonymous with 'students' (as in "The class really liked that activity") or with 'lesson' (so "I planned well for that class"). Where 'class' refers to 'the students', there is a suggestion of depersonalization in the teacher-student relationship, and interesting insights to classroom power. In this case, the keyword would be useful in a dialogic analysis. This may not the case where 'class' denotes 'the lesson', as this represents the speaker's personal choice between the two synonyms in talking about the teaching event as a whole. We need to consult the concordance to determine which meaning is typical in case in Tom's feedback (Table 5).

Table 5: Concordance of the keyword 'class' from Tom's feedback

1	the first lesson and standing up in front of the	class	oh that that actually i i liked you know i i rea
2	re and well even kind of before once i was in the	class	here and i think it helped that i was seeing them
3	is a good point to pick for a focus for the next	class	yes say okay i am going to er focus on prepping t
4	was trying to do it just to you know lighten the	class	a little bit
5	good um what about something that happened during	class	tonight that you would like to see happening agai
6	omething else that was kind of not related to the	class	okay so the like like like i like the denver bro
7	took the time to come and talk to me he after the	class	the the girl asked me you know where are you from
8	d in things like that so incorporate it into your	class	yeah definitely um 5 5 you know even though i was
9	bout something in particular that happened during	class	tonight that you would like to see er that you wo
10	d to actually i need to do this from front of the	class	so you both tend to do this a lot you you will as

Tom's use of the keyword 'class' indicates its use as 'lesson'. Given that Tom is the only Australian trainer in the group, the keyword 'class' may possibly be a consequence more of dialect differences than questions of teaching or learning. To check this, taking 'lesson' and 'class' as being dialect synonyms for the same concept, we can recalculate the joint frequencies for both 'class' and 'lesson' in both the Tom and reference corpora, thereby determining whether the 'class/lesson' concept remains a keyword in Tom's discourse. The log likelihood of 42.95 indicates that class/lesson is a useful indicator of Tom's feedback as compared to the other trainers, and is therefore kept as a keyword which typifies Tom's discourse.

A final example of how the keywords might be checked for relevance to the research purpose is the keyword 'know'. This keyword could be helpful as a guide to both trainer and trainee cognitions, but may equally have high frequency in the corpus because of its role as a conversational filler, interpersonal comment or a framing move (Cortes, 2002). The concordance lines, again, provide evidence (Table 6).

Table 6: Concordance of the keyword 'know' from Tom's feedback

1	know er nop and here is the boss you know and you	know	no that that was fine that was a good yeah that
2	eans to get the class yeah and i didnt yeah and i	know	that and i um i did notice too that you are as y
3	ugh just keep your eye on it well i just got you	know	that time with and and play and you know and no
4	got you know that time with and and play and you	know	and no no you started at the top here though in
5	m good just keeping doing that and then um you	know	like i noticed i wrote a bunch of sentences i did
6	e a bunch of sentences i didnt punctuate them you	know	i didnt put a period um yeah is that okay is
7	as yeah that is alright yeah even though i dont	know	if they have ever seen one before but you know bu
8	nt know if they have ever seen one before but you	know	but no the at this level they will be fine with
9	t easier and a lot more concise you will actually	know	when you have done enough okay er also please nex
10	g any other class i thought about that i i didnt	know	yeah i i didnt panic er i never really worry abou

The concordance lines of 'know' (Table 6) indicate that it is largely used in Tom's feedback as a filler (as in 'you know' in lines 1, 3, 4, 5, 6 and 8). This seems to be part of the idiolect specific to Tom's discourse, and sheds little light on the dialogicity of the feedback. To determine whether the cognitive sense is perhaps a keyword, 'you know' collocates are removed from both the Tom and reference corpora and the keyness recalculated for only the remaining items. With the log likelihood for 'know' without the collocate 'you' at only 0.01, this can no longer be considered a keyword for our analysis.

Similar decisions are made about the other keywords. For example, 'okay' serves our purposes as it is used, in addition to a backchannel cue, as a discourse marker to indicate change of speaker or readiness to close a topic (Beach, 1993; Gardner, 2005; McCarthy, 2002). The keyword 'kind', in our data, is used exclusively with 'of', indicating it is a softener and therefore relevant to the mitigation involved in the feedback (Poos and Simson, 2002). 'Like' occurs almost exclusively as a discourse marker, associated with discourse newness (Fox Tree, 2007) and thus with the reflective process, and is therefore appropriate. These keywords are retained for the purposes of the analysis. Keywords eliminated because they do not typify Tom's discourse or offer dialogic insights are replaced by keywords lower in the initial keyword list, to conclude a final list of ten relevant keywords (Table 7).

Table 7 Top ten keywords for Tom's feedback adjusted for relevance

Rank	Frequency	Keyness	Keyword
1	116	42.95	class/lesson
2	116	27.51	like
3	33	24.69	focus
4	1343	23.99	I
5	78	22.13	questions
6	26	20.75	future
7	16	19.73	statement
8	265	19.62	okay
9	78	19.57	kind
10	22	16.46	essentially

Having generated the keywords and identified which keywords are worthwhile for the purposes of the analysis, the next step is to generate concordance plots for each of these

keywords. Figure 1 shows a screenshot of this feature in AntConc. For each plot, the occurrence of the keyword in each file of the corpus is denoted by a vertical line. The focus of our analysis in this instance is feedback session 14 (circled in the figure), with Tom, Cliff and Patsy.

The plots for each keyword in session 14 now collected, are assembled to form a linear representation of the feedback conference, indicating the keyword occurrences and co-occurrences, as shown in Table 8. The co-occurrence of these keywords can now be visually identified, representing a possible stretch of 'typical' discourse.

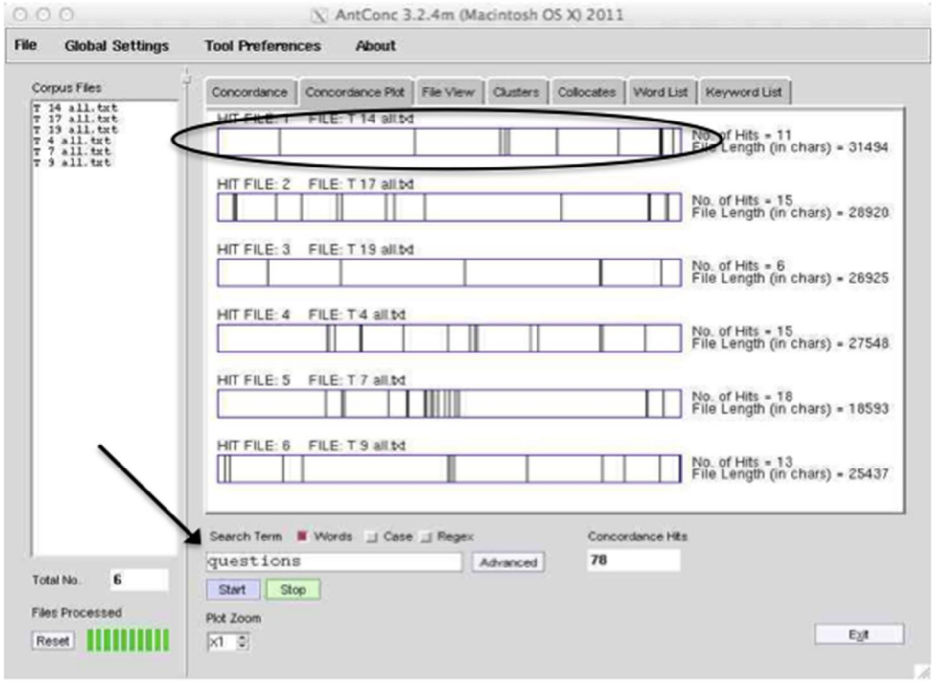
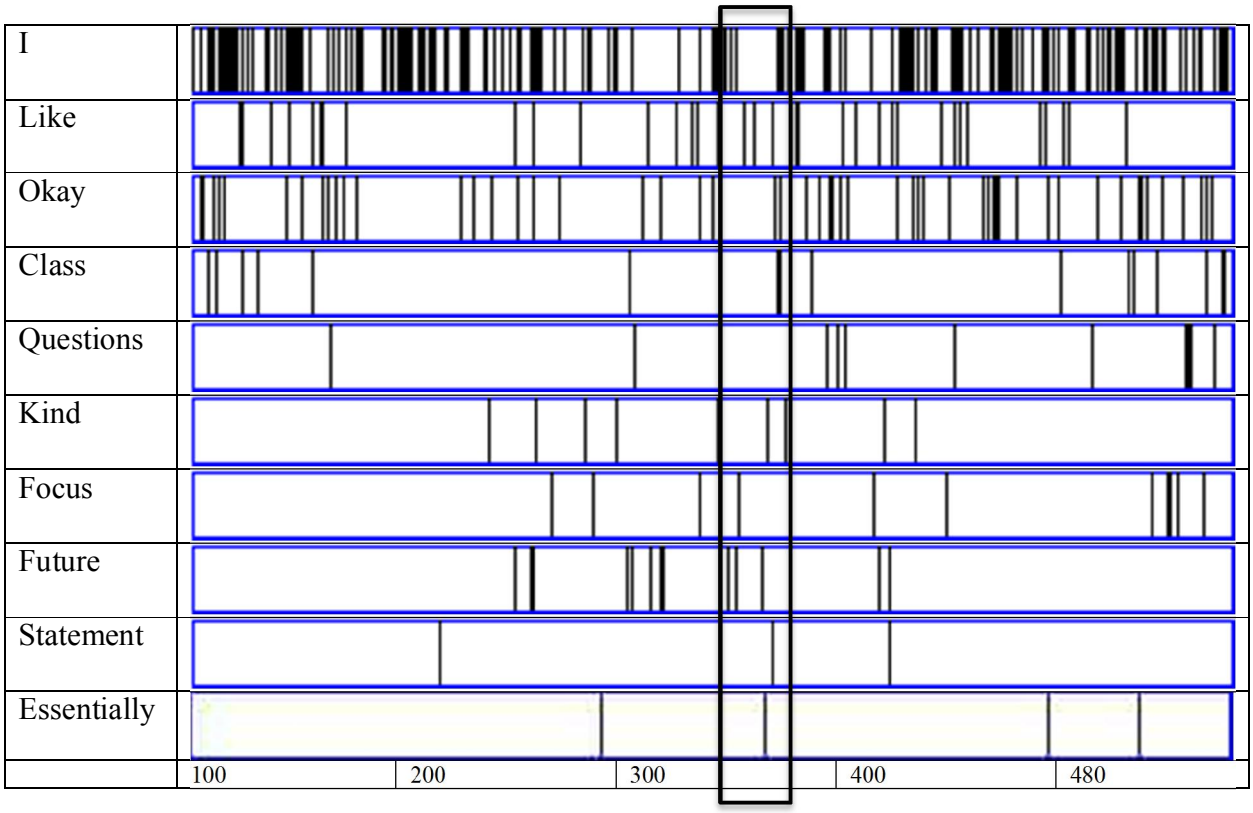


Figure 1: Screenshot of the concordance plot tool on AntConc.

Table 8 Concordance plots of Tom's keywords for feedback in sessions 14



5. Extract 3: An extract of 'typical' data

The extract highlighted in Table 8 has been selected based on the co-occurrence of keywords. The exact location of this extract in the conference can be located by searching for one of the less frequent keywords. Doing so, we identify the stretch from turn 267 to turn 276. Qualitative analysis of interactive discourse may be expected to be around ten turns or about 200 words to provide the reader with sufficient insight into the data, as shown in extracts 1 and 2 above (see Depalma et al., 2009, for example). We may start with a selection of around this length based on the plots. To demonstrate the link between the plots and this extract, keywords in the extract are in bold.

267	Tom	That's the **kind** of lesson aim that.. er **essentially** a lesson aim should be. so this is what the students learn here you can test them on it you can write an exam you **know** based on a simple **statement like** that
268	Cliff	{Yeah
269	Tom	{That's the lesson **okay** er Patsy your half of the lesson [2.4] **okay** tell me what tell me about your class
270	Patsy	[2.8] Um
271	Cliff	**I** haven't given her any feedback just as yet for her **class** can **I** do that or
272	Tom	Er it's **okay** we we'll cover it {together
273	Cliff	{Oh there's {not very much
274	Patsy	{I: [3.6] **I** do really enjoy it actually **I** didn't think it very well

275	Tom	[2.1] That's **kind** of useless feedback {er in what you'll have to be in what
276	Patsy	{No **I** know **I** know **I** know **I** know **I** going getting there um I felt it was too much **like** a practice rather than a production there was too much written stuff and it was too structured for them and they weren't it wasn't as much fluency **like** if **I** compare it to my first production um it was a loss lot less fler- fluency and: it was a bit closed so **I** didn't **like** that aspect of it um [3.0] even

The extract looks promising. However, there is a clear transition in turn 269 where Tom moves from the discussion of Cliff's lesson to that of Patsy's. For analysis, such a transition relevance point serves as a perfect point at which the analysis can begin, making for a more coherent extract for considering the authoritativeness of Tom's feedback. The analysis of this extract, then, can be shifted to begin at this transition. The adjusted selection is still guided by the corpus data, and made more significant in that it begins from a transition relevance point.

269	Tom	That's the lesson okay er Patsy your half of the lesson [2.4] okay tell me what tell me about your class
270	Patsy	[2.8] Um
271	Cliff	I haven't given her any feedback just as yet for her class can I do that or
272	Tom	Er it's okay we we'll cover it {together
273	Cliff	{Oh there's {not very much
274	Patsy	{I: [3.6] I do really enjoy it actually I didn't think it very well
275	Tom	[2.1] That's kind of useless feedback {er in what you'll have to be in what
276	Patsy	{No I know I know I know I know I going getting there um I felt it was too much like a practice rather than a production there was too much written stuff and it was too structured for them and they weren't it wasn't as much fluency like if I compare it to my first production um it was a loss lot less fler- fluency and: it was a bit closed so I didn't like that aspect of it um [3.0] even
277	Tom	(cough)
278	Patsy	just because I did try well attempted to open it up a little bit by having the question why but that still wasn't good enough I don't think um [2.4] and [2.0] (laugh)
279	Tom	Okay um what could you do to change it imagine er you had a different group coming in in tomorrow or whatever for your next lesson which is very common where you teach a class and then you tea- you're teaching another group of students a similar subject because you're in a school and you might have six groups of the
280	Patsy	{Yeah
281	Tom	{of the students doing the same thing so imagine that okay
282	Pasty	(cough)
283	Tom	You've got to teach this lesson again tomorrow to another group
284	Patsy	Mm

The extract suggests Tom's feedback contains both authoritative and dialogic elements. Starting with the authoritative elements, notice how Tom is clearly in control of the feedback, directing Patsy to reflect on her lesson (turn 269), dismissing Cliff's bid to contribute on Patsy's behalf (turn 272), and rejecting her initial reflective comments as 'kind of useless' (turn 275). At the end of Patsy's initial reflection (in turn 278) Tom gives additional time for her to continue, leading to an awkward silence which Patsy's laughter seems to indicate she finds mildly threatening. Unhappy with where her reflection has led, Tom launches into a long and detailed prompt (turns 279 to 283) for further output from Patsy (which she produces in the turns following). There is no doubt that Tom would like Patsy to reflect and not only allocates discourse space for her to do so, but takes extraordinary measures to ensure it transpires. Tom's turns here, therefore, indicate the unflinching imposition of his authority. Dialogically, although Tom is prompting deeper reflection from Patsy in the turns following 279, his turns lack responsivity and sequentiality in that all the problems Patsy enumerates about her lesson in turn 276 ('too much like practice', 'too much written stuff', 'too structured', 'wasn't much fluency') go uncommented, and are not followed up in Tom's subsequent turns. One gets the feeling that perhaps Tom is expecting a different response; and until this response is made, he will keep pressing.

Within this firm control over the feedback and despite the presence of these authoritative elements, Tom's discourse contains features that are highly dialogic. Providing space for Patsy means a number of lengthy pauses (in turns 269, 270, 274, 275, 276, and 278) which Tom seems content not to fill. Such silent pauses have been shown to be related to issues of control and power (Endrass et al., 2008; Phillips, 1994), but are indicative of Tom's active pursuit of Patsy's reflective voice. The emergence of Cliff's voice in this stretch of discourse quite obviously dedicated to feedback on Patsy's lesson is also indicative of the overall feeling of openness to speak and share that Tom's feedback appears to have engendered. More specifically from a dialogic perspective, although Tom has firmly insisted through the discourse that Patsy make her reflection, Tom refrains from imposing his own views into the dialogue, and instead encourages Patsy's own reflection on the lesson.

This final extract demonstrates the fullness of the data that has been identified as typical by the corpus plots. While not aligned to an argument for Tom as specifically either dialogic or authoritative, the extract provides a more realistic insight into Tom's feedback, guided by the goal of finding 'typical' discourse in the data.

6. Conclusion

In exploring the dialogic nature of Tom's feedback, we were faced with the problem of portraying Tom and his feedback to a reader with only limited access to the data. Our selection of extracts, then, carries the burden of delivering to the reader the reality of Tom's feedback world, and also the evidence of our research findings. Our cherry-picked selections in the first two extracts give the reader an incomplete, one-sided perspective of the much richer reality which becomes evident in extract three which typifies the nature of Tom's feedback. To stretch the metaphor, our search for a stretch of discourse that typifies the data led us to the ripest cherry!

The key issue here is the typicality of the extract that is selected. An extract that typifies the data will provide a useful and unbiased window for the reader into the world represented by the data. In our case, to deliver to the reader a realistic representation of the dialogicity of Tom's feedback, the most typical stretch of discourse would provide the most useful insight. Since the

extract is selected based on the co-occurrence of keywords, we can judge this extract to be typical of Tom's approach to feedback across the entire data set when contrasted with other trainers.

The basis of this typicality is the frequency of keywords in the data as identified through corpus tools, and so is dependent on features in the data set itself. The corpus plot feature provides a useful, visual guide to the co-occurrence of these keywords, and thus serves as a guide to identifying stretches of the text that can be thought to typify the entire discourse with all the features that makes it distinctive compared with the other trainers. The selection of this extract, then, provides an overview of the data free from the researcher's short-term goals of conveying a specific argument.

Following the purposes of our research, specific criteria exist for our definition of typicality, which may differ from those of researchers with different purposes. We have demonstrated our own method in the selection of keywords that suited our research purposes. However, the approach to identification of typical stretches which illustrate the data using corpus plots as the basis of extract selection can be adapted for other uses based on specific research interests.

It should be noted that the data here served to demonstrate this approach to principled extract selection remarkably neatly. Within this feedback session we were able to cherry pick an authoritative stretch of data, and another highly dialogic stretch. That the corpus plots led to an extract which was a combination of both dialogic and authoritative is coincidental. The ripest stretch of discourse might have been very authoritative or dialogic had either been representative of most of the discourse. Our corpus plots would have directed us to such an extract.

A comprehensive analysis of the data required for a dialogic inquiry is only possible with the use of a qualitative approach. Such qualitative tools are, however, open to bias and subjectivity, and have been criticized by researchers with a greater orientation towards quantitative methods (Cohen et al., 2013). For this reason, attention to issues of trustworthiness and dependability need to be given in qualitative research (Edge and Richards, 1998). To make such qualitative research more acceptable to a wider community, particularly those with a more quantitative research orientation, the issue of bias needs to be addressed. The principled approach to data selection demonstrated here, rather than the more convenient but less credible cherry-picking approach, moves towards strengthening trustworthiness in qualitative research papers. Whilst still retaining the strengths of qualitative research, dealing with the bias posed by cherry picking through principled extract selection is a start to addressing this.

Cherry picking, whereby a researcher (unconsciously) selects extracts for presentation which best illustrate the desired conclusions, is a threat to the trustworthiness of much qualitative research. In this paper, we have presented a method for the principled selection of extracts which most typify the discourse on the basis that these are the most appropriate extracts to present, or perhaps the ripest cherries to pick.

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