"In an aeroplane, yes, in an aeroplane": Within-unit repetitions in classroom discourse

Richard Watson Todd

King Mongkut's University of Technology Thonburi

Bangkok, Thailand

"In an aeroplane, yes, in an aeroplane": Within-unit repetitions in classroom discourse

Abstract

This paper looks at the functions of repetition of lexical items which fall within a single T-unit. Examining data from a foundation English course at a Thai university, transcripts of eliciting transactions from 12 lessons were divided into T-units. Within-unit repetitions were identified and categorized. Categories of repetition found, in order of frequency, were emphasis, clarification, affirmation, left-fronting, choral units, re-initiation, and pedagogic reformulation. These functions were found to be related to the discourse move the repetition occurs in and to the type of repetition, but were not related to individual teachers. The findings suggest that within-unit repetition is primarily used to aid students' comprehension of teacher talk.

1.   Introduction

Although some may think that Halliday and Hasan (1976) have written most that there is to be written about repetition, while preparing some transcripts of classroom discourse for analysis, I encountered some interesting examples of

adjacent repetitions of lexical items. Using patterns of intonation, syntax and pausing to identify units, the repetitions frequently fell into the same T-unit. I found this intriguing and decided to investigate why these within-unit repetitions were so frequent.

It might be argued that repetition is uninteresting and not worthy of serious investigation since any repetition adds no new information to a stretch of discourse. But this hypothetical argument is, in fact, a strong justification for investigating repetition. Since repetition is not providing any new information, and assuming that people have reasons for saying the things they do, repetition may serve purposes which analyses focusing on the introduction of new information into discourse would ignore. In addition, investigating repetition may highlight certain functions of language use which could otherwise be impenetrably hidden behind layers of new information. An analysis of repetitions based on these arguments would not test any hypotheses since the functions of language use conveyed through repetition cannot be predicted. Instead, such an analysis would be exploratory. It is such an analysis that I propose to undertake in this paper.

2.   Previous investigations of repetition

Repetition has been treated in linguistics in two main ways. Firstly, repetition underpins lexical cohesion (Halliday and Hasan 1976). Secondly, the

pervasiveness of repetition in conversation has led to claims that repetition is a key resource in creating discourse (Norrick 1987; Tannen 1989).

Cohesion refers to how grammatical and lexical features of a sentence connect it to other sentences in the same text. Halliday and Hasan (1976), in their influential study of cohesion, identified five types of cohesion, of which lexical cohesion is the most frequently used. Lexical cohesion is primarily instantiated by reiterations of a lexical item in different sentences. These reiterations may involve repetition, paraphrase, and use of superordinates and hyponyms. Following Hoey (1991), I will use the term *repetition* as the general term for all these rather than reiteration, and will also include other kinds of repeating including referring expressions.

The second main treatment of repetition in linguistics is best exemplified by the work of Norrick (1987) and Tannen (1989). Focusing on the uses of repetition in conversation, both Norrick and Tannen identify three main functions of repetition in addition to lexical cohesion and semantic repetition. They argue that repetition also serves to facilitate production by encouraging fluency and giving speakers time to think, aids comprehension by reducing processing load, and allows the accomplishment of social goals through, for example, enabling participants to get or keep the floor, provide backchannel responses, and ratify

other participants' contributions. All of these functions, they argue, serve the overarching purpose of creating interpersonal involvement.

These two treatments of repetition have provided valuable insights into language use. However, the two approaches have overlooked one potentially important kind of repetition, Halliday and Hasan by definition, Norrick and Tannen by default. Both approaches have focused largely on repetitions between units and have ignored repetitions within units. Halliday and Hasan's approach takes the sentence as the unit of analysis and looks purely at the repetition of lexical items between sentences ignoring any within-sentence repetition. Norrick and Tannen, on the other hand, using the utterance as the unit of analysis, do not exclude within-utterance repetitions from their analyses. Nevertheless, out of 24 short stretches of discourse which Tannen examines, only four contain within-unit repetition. Similarly, only three of Norrick's eleven sub-categories contain within-unit repetition. This may suggest that within-unit repetition is infrequent and unimportant, but it may be an artefact of the data. Both Norrick's and Tannen's data come from informal conversations, and by examining data from a different discourse type, we may find that within-unit repetition plays an important role.

In the exploratory spirit of this paper, I shall investigate whether within-unit repetition can play an important role and the functions it can perform in a

different genre. The genre used is that of classroom discourse, since this provided the initial stimulus for this investigation.

3. The data

3.1 The situation

For reasons of access and co-operation, the data to be analysed were collected from a foundation English course at King Mongkut's University of Technology Thonburi in Thailand. The course is based around six units of *Interface* (Hutchinson and Waters 1984).

The extracts analysed in this paper come from classes taught by four different teachers. All four were Thai with a good level of English competence and at least one year's experience in teaching the course. The teachers are here called teacher A, B, C and D. Teachers A and C are female, and teachers B and D are male. Each teacher was recorded for three lessons.

The class size varied from 22 to 37 students. Ages of students ranged from 17 to 22, with in most cases a mix of males and females (although teacher D's class were all males). The majority of students were lower intermediate in terms of English proficiency and were generally motivated.

Although the whole of twelve lessons (three lessons each for four teachers) were recorded on video, the extracts used in this paper focus purely on the eliciting transactions in the lessons, since these are the points in the lessons where teacher-student interaction is likely to be highest.

3.2　Dividing the discourse into units

In investigating classroom discourse, we are analysing oral discourse, and thus sentences cannot be used as the unit of analysis as they can only be identified in written discourse. In analysing oral discourse, several authors (e.g. Halleck 1995; Klecan-Aker and Lopez 1985; Larsen-Freeman 1983) have used T-units as a parallel to the use of sentences in written discourse. A T-unit is "an independent conjoinable clause complex" (Fries 1994: 229), or an independent clause together with all related dependent clauses. Given its wide use as a unit of analysis for oral discourse and its parallels with the sentence, the T-unit was chosen as the appropriate unit of analysis. However, the process of identifying T-units is not without problems, so I will now turn to how T-units were identified in the transcripts.

3.3　Identifying T-units in the transcripts

Although it may seem straightforward to identify independent clauses and to assign dependent clauses to independent clauses, the inherent surface 'messiness' of much oral discourse makes T-units hard to operationalize. For

some stretches of discourse in the transcripts, such as example 1 below where boundaries between T-units are marked with double slashes, the identification of T-units is straightforward.

Example 1

T: // You can ask questions // and within twenty questions if you can guess correctly, if you can find out what I think of, then you win, OK? // The questions can be yes-no questions or 'or' questions. // For example, you can ask 'Can we eat it?' // I will answer just yes or no. //

(Teacher B, Lesson 2)

For much of the transcripts, however, identifying T-units is far less straightforward. To avoid total subjectivity, guidelines are needed. The following guidelines were used to identify T-units in this study. These guidelines are not meant to be applied blindly. Where, say, intonation patterns (for example, a break between T-units will not occur in the middle of a tone unit) indicate otherwise, the guidelines are not followed. These, however, form a tiny minority of instances.

Guideline 1: Repetitions and paraphrases of non-self-standing information (e.g. isolated noun phrases) are included in the same T-unit as the independent clause

containing the information with which it is most closely associated by intonation. For example:

Example 2

T: // This is its neck, right? Its neck, uh-huh, or opening. //

(Teacher C, Lesson 1)

Guideline 2: A single T-unit may cover more than one speaker turn. There are two main situations in which this can happen.

Firstly, on some occasions the teacher and the students may speak together in chorus as shown in example 3.

Example 3

{
 T: // One, two, three.

 SS: One, two, three. //

(Teacher B, Lesson 1)

That such choral speaking appears on two lines rather than one is an artefact of the transcription conventions which require that teacher and student turns are indicated separately. The two lines should therefore be counted as a single T-unit.

The second case where a single T-unit may cover more than one speaker turn is more complicated. On several occasions, the teacher uses a sentence completion (Watson Todd 1997) instead of an interrogative to elicit an answer. The teacher expects the students to provide completion of a T-unit. This does not always happen, however. On occasion, the teacher is required to complete the T-unit him/herself as in example 4.

Example 4

T: // Yes, it will move ... forward. //

(Teacher B, Lesson 1)

Despite the pause in the middle of example 4, this is a single T-unit. If we are counting a teacher completion as a single T-unit, it follows that we should also count a student completion of an unfinished T-unit in the same way. In example 5, the teacher is expecting a student completion so the first two turns should be counted as a single T-unit. The third turn in example 5, however, is probably a separate T-unit as the original T-unit has already been completed and the third turn is acting as an acknowledgement of this completion.

Example 5

T: // it will ... it will (1.5) [T makes bird wing movements with his hands.]

SS: fly. //

T: Fly, yes. //

<div align="center">(Teacher B, Lesson 1)</div>

This treatment of the third turn as a separate T-unit can be seen more clearly in example 6. In this example, it is clear that the teacher is not attempting to provide completion of his original T-unit and so the third turn should be treated separately.

Example 6

T: // The answer is ...

S: robot. //

T: Robot? // Yes, you are right. //

<div align="center">(Teacher B, Lesson 2)</div>

The reason for treating the third turn as a separate T-unit is that it is not attempting to complete the original T-unit. On a few occasions, as in example 7, however, both teacher and students attempt to provide completion together. Such examples are treated as a single T-unit.

Example 7

{ T: // so you see it becomes ...   bigger. //

 SS: bigger.

(Teacher B, Lesson 1)

Guideline 2 is only applicable to teacher initiations in the form of sentence completion. Responses to interrogatives, which form complete T-units by themselves, are treated as separate T-units.

Guideline 3: Pauses of two seconds or more are taken as indicating a boundary between T-units, except where the continuation after the pause completes a T-unit as described in Guideline 2.

Guideline 4: Framing moves (Sinclair and Brazil 1982; Sinclair and Coulthard 1975) are counted as separate T-units, but non-framing use of "OK", "Right" etc. is included in the same T-unit as the independent clause it is most closely associated with by intonation.

Guideline 5: The following are counted as separate T-units:

- Two or more independent clauses with different content spoken simultaneously.

- Unclear turns.

- Counting (e.g. "// One, two, three //").

- Words spelt out (e.g. "// B - A - L - L - O - O – N //").

- Nominations.

- Information written on the board.

Guideline 6: Exclamations are not counted as separate T-units for practical reasons. Most exclamations are of the form "Ooh" and "Aah", and it is frequently difficult to distinguish these exclamations from the general hubbub of noise present in the classroom.

Guideline 7: Verbal information from videos or audio tapes played in the classroom falls outside the discourse requiring division into T-units and is therefore not transcribed. In two of the lessons in this study (Teacher C, Lesson 2 and Lesson 3), the teacher plays a video tape and an audio tape respectively. In both cases, no reference is made in the classroom discourse to any specific information conveyed verbally in the video or tape.

Guideline 8: T-units can be incomplete. Where appropriate, ellipted material is added to T-units, and the vast majority of incomplete T-units become syntactically complete after the addition of ellipted material. Some T-units, however, remain incomplete, but this is not regarded as problematic.

Following these guidelines, T-units were identified and indicated by superscript numbers at the start of the T-unit as in example 8.

Example 8

T: [62] Can it carry things? [63] Yes it can. [64] It can help people to carry things.

(Teacher B, Lesson 2)

The nine lessons used for analysis comprise a total of 975 T-units, of which 32 are incomplete (even after supplying ellipsis). The longest extract (Teacher B, Lesson 1) consists of 256 T-units, and the shortest extract (Teacher D, Lesson 3) consists of 40 T-units.

3.4   Identifying within-unit repetitions in the transcripts

Having divided the discourse into T-units, we next need to identify repetitions of lexical items within T-units. One key point here is that it is only repetitions of *lexical* items that need to be identified. Repetitions of function words, such as "to" in example 9 will be excluded from the analysis.

Example 9

T: [79] It should be opposite to (1.0) to, to this open end, right?

(Teacher D, Lesson 1)

Furthermore, I am using the term *repetition* as an umbrella term including what Hoey (1991) terms simple repetition, complex repetition, simple paraphrase, complex paraphrase, and use of superordinates and hyponyms. Examining each T-unit separately, 215 of the 975 T-units (22.1%) in the extracts analysed contain within-unit repetition; some of these contain more than one repetition. In total, there are 263 within-unit repetitions of lexical items in the data.

4.   Categorising within-unit repetitions

To identify categories of within-unit repetitions, the first stage is to identify those instances which should be discounted from further analysis. There are four categories of within-unit repetitions that can be discounted.

4.1   Unclear T-units

Repetitions within T-units that contain unclear material that could not be transcribed from the videos are discounted, since the occurrence of unclear material makes it impossible to identify the function that the repetition is serving. Example 10 is an instance of this.

Example 10

T: [208] Uh, can you think of this principle (unclear) the principle?

(Teacher B, Lesson 1)

There are 2 such T-units in the data.

4.2   Automatic repetition

There is a closed set of lexical items that may be repeated habitually, where the habitual nature of the repetition is indicated by intonation. This set includes items such as "Thank you", "OK" (in non-framing moves) and "Yes". There are 14 T-units which contain automatic repetition in the data, and as it is unclear what functions these repetitions are serving, they are excluded from any further analysis.

4.3   Self-correction

In 9 T-units in the data, the speaker starts a unit, makes a mistake in language, and backtracks to self-correct the mistake, as in example 11.

Example 11

T: [185] Now, I would like to, I would like you to see this diagram about the petrol engine.

(Teacher D, Lesson 1)

These instances of self-correction may be due to the level of the speaker's language competence, as shown by a far higher proportion of repetitions categorized as self-corrections for Teacher A than would be expected. They are therefore not included in any further analysis.

4.4 Ideational repetition

There are some things which cannot be said without repetition. This is especially noticeable where an independent clause refers to the same concepts as its related dependent clauses. In example 12, "the air" and "the balloon" are both repeated, but it is difficult to see how this could have been avoided while still conveying the same information.

Example 12

T: [196] When the air goes out of the balloon, it moves the balloon forward.

(Teacher B, Lesson 1)

In cases such as this, the information to be conveyed dictates the use of repetition, and the repetition serves no other function in the discourse. In the data, there are 22 within-unit repetitions of lexical items used for ideational repetition. This relatively low frequency suggests that the teachers generally avoid the use of dependent clauses in their teacher talk.

Having discounted these four categories, there are 216 within-unit repetitions of lexical items remaining. These fall into a further seven categories.

4.5 Left-fronting

Left-fronting involves positioning as the theme of a unit something which would not normally be found in this position (see Stockwell 1977). In some instances, left-fronting the theme leads to a repetition of the theme as shown in examples 13 and 14.

Example 13

T: [49] The pressure inside this balloon, what happens to the pressure inside this balloon?

(Teacher D, Lesson 1)

Example 14

T: [44] The air inside, the air inside the balloon, what, what, what happens to the air?

(Teacher D, Lesson 1)

Left-fronting the theme serves the function of highlighting the theme. In classroom discourse, the teacher may use left-fronting to draw students' attention to the theme as a way of indicating what needs to be attended to in the T-unit. This may, in turn, facilitate students' comprehension. In the data, there are 12 within-unit repetitions which are categorized as left-fronting.

4.6   Clarification

One key skill in teaching is to provide linguistic support in teacher talk so that students can understand the classroom discourse (Scarcella and Oxford 1992; Watson Todd 1997). This support often involves clarifications of concepts. These clarifications may involve paraphrases of lexical items as in examples 15 and 16.

Example 15

T: [7] and you have to guess, you have to find out what I think of.

(Teacher B, Lesson 2)

Example 16

T: [32] but you are allowed to ask yes-no questions or 'or' questions, questions with 'or'.

(Teacher B, Lesson 2)

An alternative form of clarification is to repeat the lexical item while also providing non-verbal support as in example 17.

Example 17

T: [32] OK. Why does R2D2 tell him that he's naked, naked [T gestures at her own arms.] ?

(Teacher C, Lesson 2)

A third form of clarification is to explicitly identify the referent of a referring expression as shown in example 18.

Example 18

T: [139] How does it work? *Bahng fý*. {= Traditional Thai rocket.}

(Teacher D, Lesson 1)

There are 67 repetitions of lexical items for clarification in the data.

4.7   Emphasis

In addition to clarification, a further key teaching skill is to highlight the key information in the discourse (Watson Todd 1997). This skill may be instantiated by writing keywords on the board, by spelling out keywords, or by repeating keywords for emphasis, perhaps with different intonations. Example 19 shows how these strategies may be combined to highlight the importance of a keyword which has been newly introduced into the discourse.

Example 19

T: [21] So in this picture you see a pump, a pump. [T writes "a pump" on the board.] [23] P - U - M - P.

(Teacher B, Lesson 3)

It is not only newly introduced words that can be emphasized through repetition. The teacher may also wish to emphasize the topic of a transaction as in example 20.

Example 20

T: [3] I will let you think about pumping systems, pumping systems.

(Teacher D, Lesson 3)

Furthermore, as shown in example 21, the teacher can highlight transitions in the discourse by using repetition in framing moves (indicated in bold type), where "OK" and "now" are taken as paraphrases.

Example 21

T: [36] **OK**, **now**, [37] these are robots, C3PO and R2D2, OK, [38] and do you think what kind of work or what kind of job can these robots do?

(Teacher C, Lesson 2)

Finally, students can repeat to emphasize a response and draw the teacher's attention to it, as in example 22.

Example 22

T: [5] Which organ, which organ that is most important to you?

S: [6] Eye, eye.

(Teacher A, Lesson 3)

There are 73 within-unit repetitions for emphasis in the data.

4.8   Pedagogic reformulation

We have seen that a teacher may reformulate a T-unit to self-correct language mistakes. Another reason for reformulation of a T-unit is pedagogic. With pedagogic reformulation, no mistake has been made. Instead, the teacher reformulates the T-unit because the original formulation does not fulfil the pedagogic purposes of the T-unit. In example 23, the teacher is attempting to elicit students' knowledge. In the original formulation, students can answer "yes" or "no", and so avoid displaying their existing knowledge. The teacher therefore reformulates the T-unit to force students to respond with their knowledge.

Example 23

T: [35] Do you know what - what do you know he can do?

(Teacher D, Lesson 2)

Within-unit repetitions due to pedagogic reformulation occur 5 times in the data.

4.9   Affirmation

The archetypal classroom exchange consists of teacher initiation - student response - teacher follow-up (Mehan 1979; Sinclair and Coulthard 1975). In the data analysed in this paper, within-unit repetitions are relatively frequent in the teacher follow-up move. An example is given in example 24.

Example 24

T: [68] What else?

S: [69] Robot.

T: [70] Robot. Robot. Mmm. [T nods her head.]

(Teacher C, Lesson 1)

In classroom discourse, teachers frequently echo student responses (Cullen 1998; LoCastro 1989), and the first occurrence of "Robot" in unit 70 appears to be an echo. The second occurrence serves a clearer pedagogic purpose. Having echoed the student response, the teacher repeats the item in order to affirm the suitability of the response (an interpretation supported by the teacher nodding her head) and to indicate that the response is accepted as part of the ongoing discourse.

Affirmations are not always exact repetitions of student responses. The teacher may reinterpret the response in affirming its suitability as shown in example 25.

Example 25

T: [105] What kind of engine works like this?

S: [106] Jet.

T: [107] Jet. OK, jet engine, good.

(Teacher D, Lesson 1)

On some occasions, the affirmation is less clear. In example 26, the teacher may be expecting the response "His place" and 'echoes' this expectation before using the student's actual response as an affirmation., or she may be affirming other possible answers.

Example 26

T: [8] Where do this boy, this boy take these people to?

S: [9] His house.

T: [10] His place, his house.

(Teacher C, Lesson 2)

Finally, where a response needs reinterpreting to be suitable, the teacher may echo, affirm by reinterpreting and then reaffirm the reinterpretation. In example

27, the expected response might be "Jet" as in example 25. "Aeroplane" is a marginally suitable response which the teacher needs to reinterpret as "In an aeroplane" in order for it to be fully acceptable. This reinterpretation is then affirmed.

Example 27

T: [218] What engine uses this uh principle? Yes?

S: [219] Aeroplane.

T: [220] Aeroplane. In an aeroplane, yes, in an aeroplane. In an aeroplane, yes.

(Teacher B, Lesson 1)

There are 43 repetitions of lexical items for affirmation in the data.

4.10   Re-initiation

When the teacher uses a sentence completion (Watson Todd 1997) as an initiation, sometimes no response is immediately forthcoming and the teacher repeats the initiation. An instance of this is given in example 5 where the teacher repeats "it will" to elicit a response. There are 8 repetitions of lexical items for re-initiation in the data.

4.11   Choral units

As we saw above in examples 3 and 7, occasionally the teacher and the students speak in chorus. It is unclear whether these choral units should be counted as repetitions or not. Although in the transcripts lexical items appear twice suggesting repetition, as they are spoken simultaneously the multiple appearance in the transcripts may be an artefact of the transcription process. A further instance given in example 28 clarifies things somewhat.

Example 28

{   T: [55] but it doesn't turn around.

   SS: go around.

(Teacher A, Lesson 1)

In example 28, the teacher and a student simultaneously complete a unit using different completions. In other words, there is a paraphrase in example 28. Here the multiple appearance of a lexical item in the transcript is not an artefact of the transcription process, and so this will be counted as a repetition. On this basis, all choral units are counted as repetitions giving a total of 8 instances in the data.

4.12   Frequency of categories of within-unit repetitions

To summarize the categorisation of within-unit repetitions of lexical items, Table 1 gives the frequency of each category in the data.

Category	Frequency
Emphasis	73
Clarification	67
Affirmation	43
Left-fronting	12
Choral units	8
Re-initiation	8
Pedagogic reformulation	5
Total	216
Ideational repetition	22
Automatic repetition	14
Self-correction	9
Unclear T-units	2
Total	47
Total	**263**

Table 1   Frequency of categories of within-unit repetition

5   The nature of within-unit repetition

Having identified the functions served by within-unit repetitions, we can now look more closely at the situations within which these repetitions occur and the characteristics of the repetitions. Regarding situation, it may be worthwhile to look at whether different teachers have a tendency to use certain functions more than other teachers, and whether there is any relationship between the functions of the repetitions and discourse moves (Sinclair and Coulthard 1975) in which they occur. Regarding characteristics of the repetitions, we can examine whether different functions are likely to be realized by exact repetitions, paraphrases and so on.

5.1   Repetitions and individual teachers

The four teachers used within-unit repetitions for the various functions identified at the frequencies given in Table 2.

	Teacher A	Teacher B	Teacher C	Teacher D	Total
Emphasis	10	19	18	26	73
Clarification	4	36	12	15	67
Affirmation	-	17	7	19	43
Left-fronting	1	6	2	3	12
Choral units	1	6	1	-	8
Re-initiation	1	4	-	3	8
Pedagogic Reformulation	2	2	-	1	5
Total	19	90	40	67	216

Table 2   Frequency of functions of within-unit repetition by teacher

From Table 2, it is unclear whether different teachers have a tendency to use different functions. To check this, we can calculate the frequencies of functions that might be expected if all teachers used the various functions in the same proportions. These expectations can be checked against the observed data to give a χ^2 value of 32.7 which is not significant (p = 0.16). Therefore different teachers do not appear to use the various functions in differing proportions. In

other words, the frequency of the functions of within-unit repetition does not appear to be influenced by the characteristics of individual teachers.

5.2   Repetitions and discourse moves

It is also interesting to see whether there is a tendency for different functions of within-unit repetition to be related to different discourse moves. The discourse moves used are derived from Sinclair and Coulthard (1975) and are teacher initiation (TI), teacher response (TR), teacher follow-up (TF), student initiation (SI), student response (SR), and framing moves (FR). In addition, two further categories of discourse moves were used, namely, teacher monologue (TM) and joint teacher-and-student units (TS). The frequency of the functions of within-unit repetition by discourse move are given in Table 3.

	TM	TI	TR	TF	TS	SR	SI	FR	Total
Emphasis	26	17	10	9	2	4	1	4	73
Clarification	23	28	7	5	3	1	-	-	67
Affirmation	-	-	2	41	-	-	-	-	43
Left-fronting	2	9	-	1	-	-	-	-	12
Choral units	-	-	-	-	8	-	-	-	8
Re-initiation	-	6	-	-	2	-	-	-	8
Ped. Reform.	4	1	-	-	-	-	-	-	5
Total	55	61	19	56	15	5	1	4	216

Table 3　　　Frequency of functions of within-unit repetition by discourse move

As with teachers, we can generate expected values assuming that there is no tendency for certain functions of repetition to be associated with certain discourse moves. Checking these against observed values, we find that there is a significant relationship between the function of repetition and the discourse move it occurs in (χ^2 = 282.5; $p < 0.001$). The clearest examples of such relationships are between affirmation and teacher follow-up, and between choral units and joint teacher-and-student units. There is also a tendency for left-

fronting to be associated with teacher initiations, but emphasis can occur in any type of discourse move.

5.3   Characteristics of within-unit repetition

Hoey (1991) classifies repetition as simple and complex repetition, simple and complex paraphrase, and use of superordinates and hyponyms. Following this classification, the functions of within-unit repetition were compared against four types of repetition: exact repetition (e.g. example 20 above); paraphrase, including use of referring expressions (e.g. example 15); repetition where the first occurrence is more content-rich than the second, including use of superordinates (e.g. example 14); and repetition where the second occurrence is more content-rich than the first, including use of hyponyms (e.g. example 25). The frequency of functions of repetition by type of repetition are given in Table 4.

	Exact repetition	Paraphrase	1st occurrence	2nd occurrence	Total
Emphasis	63	7	-	3	73
Clarification	-	46	1	20	67
Affirmation	6	25	-	12	43
Left-fronting	7	-	5	-	12
Choral units	7	1	-	-	8
Re-initiation	2	3	1	2	8
Ped. Reform.	3	1	-	1	5
Total	88	83	7	38	216

Table 4   Frequency of functions of within-unit repetition by types of repetition

Again, by generating expected values, we can see that there is a significant relationship between function of repetition and types of repetition ($\chi^2 = 200.1$; p < 0.001). Emphasis tends to be instantiated by exact repetition, and both clarification and affirmation by paraphrase or repetition where the second

occurrence is content-rich. Repetition where the first occurrence is content-rich is infrequent and usually associated with left-fronting. Although these correspondences between function of repetition and type of repetition may be due to the way in which the categories were set up and identified, the relationship is nevertheless striking.

6   Comparison of classroom discourse and conversations

Although the findings so far have been interesting, if we are to understand their significance for teaching practice, we need to compare them with some benchmark data. The standard benchmark for comparisons of spoken data is conversation. To enable such a comparison to be made, 5,628 words of conversational discourse of native speakers were taken from Crystal and Davy (1975). These extracts of conversational discourse comprised 549 T-units (for comparison, the classroom data consist of 5,849 words or 975 T-units).

Within the conversational data, there were 87 instances of within-unit repetition. While most of these can be classified into the categories set up for the classroom data, one new category was needed. In 29 instances, the speaker used within-unit repetition to retain the turn and prevent an interlocutor interrupting. An example of this is given in example 29.

Example 29

A: and we miscalculate (*B laughs*) we miscalculated it.

In example 29, A is holding the floor, but may perceive B's laughter as a potential interruption. To retain the turn, A continues quickly with repeated information.

Including this extra category, we can now compare the frequencies of the functions of within-unit repetition in classroom data and conversations, and this comparison is shown in Table 5.

	Classroom discourse		Conversation	
	Frequency	%	Frequency	%
Emphasis	73	27.76	6	6.90
Clarification	67	25.48	11	12.64
Affirmation	43	16.35	0	0.00
Left-fronting	12	4.56	4	4.60
Choral units	8	3.04	0	0.00
Re-initiation	8	3.04	0	0.00
Pedagogic reformulation	5	1.90	0	0.00
Ideational repetition	22	8.37	5	5.75
Automatic repetition	14	5.32	11	12.64
Self-correction	9	3.42	21	24.14
Unclear T-units	2	0.76	0	0.00
Retaining turn	0	0.00	29	33.33
Total	**263**		**87**	

Table 5   Comparison of functions of within-unit repetition in classroom discourse and conversations

From Table 5, we can see that the number of within-unit repetitions in classroom discourse is much higher than in conversations. It might be posited that the

frequency of repetitions in classroom discourse is due to the fact that the participants are not native speakers. However, the patterns of the functions served by repetitions suggest that this is not the case. For non-native speakers, we might expect more frequent use of repetition for self-correction, but the opposite pattern is found in the data in this study. It therefore seems likely that the high proportions of repetition for emphasis, clarification and affirmation are the key to the overall higher frequency of within-unit repetitions in classroom discourse.

7   Discussion and conclusion

This paper has far more in common with Norrick's (1987) and Tannen's (1989) identification of functions of repetition in conversation than with Halliday and Hasan's (1976) lexical cohesion. This is to be expected as the paper investigates within-unit repetition and functions of repetition, both of which are ignored in Halliday and Hasan's approach.

In the data analysed in this paper, 22.1% of T-units contained within-unit repetition, a proportion similar to that found in Norrick, but far higher than that given in Tannen. Although less than a quarter, this proportion is higher than that found in the conversational data and suggests that within-unit repetition may play an important role in classroom discourse, especially in teacher monologues, teacher initiations and teacher follow-up moves.

The pedagogic functions of within-unit repetition initially seem wide-ranging. If we attempt to categorize these functions in terms of the four main purposes of repetition identified by Norrick and Tannen (i.e. lexical cohesion, production, comprehension, and social goals), however, we find that the vast majority fall into the purpose of comprehension. This purpose of repetition is to aid listeners' comprehension by reducing the processing load. There are three ways in which the factors identified in this paper serve the purposes of comprehension.

Firstly, the teachers try to highlight certain information or indicate what information is important in the ongoing discourse. They may do this through emphasis, affirmation and left-fronting, with the first two being particularly prominent in classroom discourse.

Secondly, the teachers use clarification to aid the students' comprehension either by using paraphrase to give students a choice of meanings to understand or by making previously used lexical items more explicit.

Thirdly, where students do not respond to an initial sentence completion initiation, a teacher re-initiation provides support to aid comprehension.

In summary, emphasis, clarification, affirmation, left-fronting and re-initiation all serve the purpose of comprehension. Together these categories make up 203 of the 216 analysed within-unit repetitions (94.0%), meaning that the primary purpose of within-unit repetitions in the classroom discourse in this study is to aid students' comprehension.

How teachers modify their language to help students to understand is a key aspect of teacher talk, but most research into teacher talk modifications has focused on phonological, lexical and syntactic modifications (see Chaudron 1988). The importance of repetition has largely been overlooked. The extent to which within-unit repetition is used to aid students' comprehension in this paper suggests that the uses of repetition in teacher talk is an area needing further research and one which may need to be included in teacher training programmes.

References

Chaudron, C. 1988 *Second Language Classrooms: Research on Teaching and Learning*. (Cambridge: Cambridge University Press).

Crystal, D. and Davy, D. 1975 *Advanced Conversational English*. (London: Longman).

Cullen, R. 1998 Teacher talk and the classroom context. *ELT Journal* 52, 179-189.

Fries, P. H. 1994 On theme, rheme and discourse goals. In Coulthard, M. (Ed.) *Advances in Written Text Analysis*. (London: Routledge): 229-249.

Halleck, G. B. 1995 Assessing oral proficiency: a comparison of holistic and objective methods. *The Modern Language Journal* 79, 223-234.

Halliday, M. A. K. and Hasan, R. 1976 *Cohesion in English*. (London: Longman).

Hoey, M. 1991 *Patterns of Lexis in Text*. (Oxford: Oxford University Press).

Hutchinson, T. and Waters, A. 1984 *Interface: English for Technical Communication*. (London: Longman).

Klecan-Aker, J. S. and Lopez, B. 1985 A comparison of T-units and cohesive ties used by first and third grade children. *Language and Speech* 28, 307-315.

Larsen-Freeman, D. 1983 Assessing global second language proficiency. In Seliger, H. and Long, M (Eds.) *Classroom Oriented Research in Second Language Acquisition*. (Rowley, MA: Newbury House): 287-304.

LoCastro, V. 1989 Teacher echoing and more. *The Teacher Trainer* 3, 9.

Mehan, H. 1979 *Learning Lessons: Social Organization in the Classroom*. (Cambridge, MA: Harvard University Press).

Norrick, N. R. 1987 Functions of repetition in conversation. *Text* 7, 245-264.

Scarcella, R. C. and Oxford, R. L. 1992 *The Tapestry of Language Learning: The Individual in the Communicative Classroom*. (Boston, MA: Heinle & Heinle).

Sinclair, J. McH. and Brazil, D. 1982 *Teacher Talk*. (Oxford: Oxford University Press).

Sinclair, J. McH. and Coulthard, R. M. 1975 *Towards an Analysis of Discourse: The English Used by Teachers and Pupils*. (Oxford: Oxford University Press).

Stockwell, R. P. 1977 *Foundations of Syntactic Theory*. (Englewood Cliffs, NJ: Prentice Hall).

Tannen, D. 1989 *Talking Voices: Repetition, Dialogue and Imagery in Conversational Discourse*. (Cambridge: Cambridge University Press).

Watson Todd, R. 1997 *Classroom Teaching Strategies*. (London: Prentice Hall).