7   DEMANDS AND SUPPORT IN THE LEARNER INTERACTION

This chapter contains an in-depth analysis of the learner talk of one case of learner interaction. Consistent with the dynamical perspective on learner interaction (cf. section 3.3), the focus of the analysis is on how the patterns and phases, identified in the visual dynamical analysis in chapter six, relate to the demands and support in the dialogue-writing activity. Hence, the chapter responds to the second research question for the study, which is:

2. How do the patterns and phases of activity relate to demands and support in learner interaction?

The section begins by outlining the procedure followed in identifying episodes of learner talk for in-depth analysis. This procedure draws on the outcomes of the visual dynamical analysis in chapter six, and it determines the structure of the subsequent section with the actual analysis of the episodes of learner talk. A final section summarises how the patterns and phases relate to the demands and support in the case of learner interaction, and provides a discussion of how these findings may be understood.

7.1   Identifying Episodes of Learner Talk

The outcomes of the visual dynamical analysis of Veronica and Karen's first dialogue-writing activity included clearer phases than in the two other cases of learner interaction. In particular, the second phase organisation, dividing the task into first and last halves, was especially evident. Moreover, there was a clear dynamic interrelationship between patterns and phases in these pupils' interaction (cf. section 6.5). For this reason, this case was expected to be particularly revealing of how the outcomes of the visual dynamical analysis, in the form of patterns and phases, might relate to demands and support in learner interaction.

One outcome of the visual dynamical analysis of Veronica and Karen's interaction was an S-pattern, which described an alternating focus of attention in the micro-context of composition intervals in the writing strand (cf. sub-section 6.2.2). There were also two forms of phase organisation in these pupils' learner interaction. The first of these contained three phases, divided the activity into beginning, middle and end parts, while the other divided the activity into a first half and a second half (cf. sub-section 6.2.3). Finally, the visual dynamical analysis revealed a dynamical relationship between the S-pattern and the two phase organisations. For example, the S-pattern was most clearly visible in the middle of the activity. Moreover, in the first half of the activity the S-pattern was related to the language code thread. That is, when the pupils focused on content they tended to speak Norwegian, and

when they focused on writing they tended to speak English. In the last half of the activity the S-pattern was less visible, and the relationship with the language code thread was less clear.

Using these outcomes of the visual dynamical analysis to select episodes of learner talk would make the in-depth analysis responsive to the dynamics of the pupils' learner interaction. Figure 7.1 illustrates a procedure for selecting episodes that takes into consideration both the patterns and phases in Veronica and Karen's learner interaction, as well as the dynamic interrelationship between these.
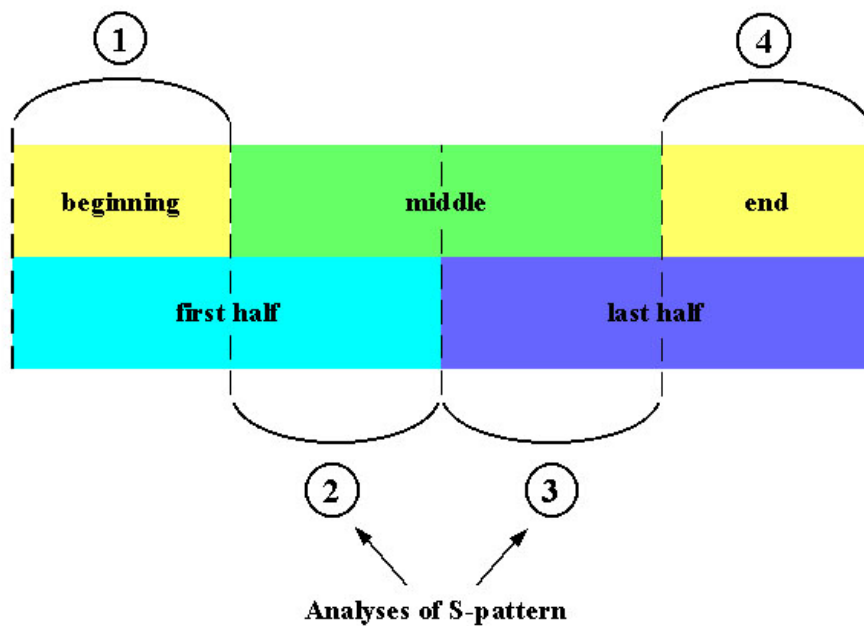

Figure 7.1: Selection of episodes of the learner interaction

According to the procedure suggested by figure 7.1, episodes of learner talk are selected from 1) the beginning of the activity (highlighted in yellow), 2) the overlap between the middle and the first half of the activity (overlap between green and light blue), 3) the overlap between the middle and the last half of the activity (overlap between green and dark blue), and 4) the end of the activity (highlighted in yellow). Moreover, the episodes selected from the middle of the dialogue-writing activity (episodes 2 and 3 in figure 7.1) will correspond to the learner talk associated with S-patterns. The in-depth analysis of episodes of learner talk in the next section follows the procedure suggested by figure 7.1.

7.2   *Analysis of Episodes of Learner Talk*

The analysis of episodes of interaction builds on how learner talk was conceptualised as talking-and-thinking in the dynamical perspective (cf. sub-section 3.2.2), and the use of

intonation units as reflecting such talking-and-thinking in the transcription of the learner interaction data (cf. sub-section 5.1.2). Moreover, as the extension of talking-and-thinking in the coding of the data, the analysis also builds on the pupils' regulative activity (cf. sub-section 5.3.7). Hence, in order to establish how the patterns and phases relate to demands and support, the in-depth analysis of learner talk will explore the pupils' regulative activity in the selected episodes of interaction. Moreover, the identification of demands and support will be discussed in relation to the task-as-plan demands and support for the dialogue-writing activity, as outlined in chapter four (cf. sub-section 4.5.1). These task-as-plan demands and support are repeated in table 7.1.

Table 7.1: Task-as-plan demands and support in March 2000

	Demands	**Support**
Cognitive	• Writing a dialogue on a given topic • Imagining a scenario • Creating roles	• They have done the role-play task two times before
Language	• Finding lexis and grammar to express what they want to write • Understanding task instructions	• Glossary in back of their textbook • Topic of task is related to theme of textbook unit they are/have been doing
Interactional	• Working in pairs • Writing the *same* dialogue on individual sheets of paper	• Experience of working in pairs • Cooperation is emphasised in the curriculum
Metalinguistic	• Understanding teacher's instructions in English • Understanding instructions on task sheet in English	• Teacher often uses English in giving instructions
Involvement	• Sitting down in pairs to write for 20 - 25 minutes • Knowing that they are going to perform the role-play dialogue in front of the whole class	• Pupils are somewhat accustomed to writing at length • Humour is integral part of task; task is perceived as a pleasant change from normal routine

7.2.1 Beginning of the Activity

The beginning of Veronica and Karen's dialogue-writing activity was associated with asynchrony in their composition, the presence of task management, fragmented focus of attention, the use of mostly Norwegian language, and Karen directing, but not focusing (cf. table 6.12 in sub-section 6.2.3). Given the focus on talking-and-thinking in the form of regulative activity, Karen's directing activity is the starting point for the analysis. In fact, both the observational notes made during the pupils' dialogue-writing activity (cf. sub-section 4.4.2), as well as an initial look at the transcription of the pupils' learner talk, showed that

Karen's directing was a dominant feature in the beginning of the activity. Hence, the episodes selected for in-depth analysis in this part of the dialogue-writing activity focuses on the interaction surrounding Karen's directing activity.

Extracts 7.1 through 7.5 reflect Karen's directing activity at the beginning of the dialogue-writing activity. Note that the right column in these extracts only indicates directing activity, and not other forms of regulative activity. The extracts also reflect pupils' choice of language code by the bracketing of utterances that have been translated from Norwegian, as follows: <L1 translated text L1> (cf. appendix E).

Extracts 7.1-7.5: Karen's directing activity at the beginning of the activity

Extract 7.1:

Line	Speaker	Text	Directing Activity
136		2	
137	Veronica:	<L1 should we write L1>--	
138		(3) <L1 should I write what I say on this L1>,\	
139		<L1 and you what you wri- L1> --	
140		<L1 you write [what y-] L1> --	
141	Karen:	<L1 [no] you have to write mine too L1>./	Directing
142	Veronica:	ehm --	
143		2	

Extract 7.2:

Line	Speaker	Text	Directing Activity
183	Veronica:	<L1 I have written the wrong thing L1>,_	
184		(.)<L1 right L1>?/	
185	Karen:	<L1 you have to write what I write L1>,/	Directing
186		(.)<L1 because I am L1> teacher./	

Extract 7.3:

Line	Speaker	Text	Directing Activity
202	Karen:	<L1 you have to come up with something L1>,\	Directing
203		<L1 because I have written L1> why [are]--	
204	Veronica:	<L1 [but] I have this here L1>.\	
205	Karen:	<L1 oh yes L1>.\	
206		<L1 it says L1> why are you late for class./	

Extract 7.4:

Line	Speaker	Text	Directing Activity
251	Karen:	<L1 you write it differently from me L1>,/	
252		<L1 you shouldn't do that L1>,/	
253		(.) <L1 you shouldn't copy that one L1>./	Directing
		(10)	
259	Veronica:	<L1 that L1>?/	
260		1	
261	Karen:	<L1 you have to write the same as me L1>./	Directing
262	Veronica:	<L1 yes but I have to see what you have written L1>./	Directing
263	Karen:	<L1 yes L1>,/	
264		why are you late for class./	

Extract 7.5:

Line	Speaker	Text	Directing Activity
275	Karen:	<L1 and then (.) you have to come up with something L1>,/	Directing
276		<L1 you could for instance (.) write L1> --	
		(8)	

In three of these extracts, Karen directs Veronica to write the same dialogue as she herself is writing. In line 141 of extract 7.1, Karen says, '<L1 no you have to write mine too L1>'. Similarly, in line 185 of extract 7.2, Karen says, '<L1 you have to write what I write L1>'. Finally, in line 251 of extract 7.4, Karen again points out, '<L1 you have to write what I write L1>', and then says, '<L1 you shouldn't copy that one L1>'. This directing activity suggests Veronica may not have understood the teacher's instructions for the activity. Given that the teacher's instructions were almost entirely in English (cf. section 4.5.1), Karen's directing may be acting as a support that balances the task-as-plan language and metalinguistic demands on Veronica for understanding the task instructions (cf. table 7.1 in this section).

In the remaining two extracts (7.3 and 7.5), Karen is telling Veronica she should also make a contribution. In the first of these instances Veronica responds, '<L1 but I have this here L1>' (line 204 in extract 7.3). In the second instance (extract 7.5), Karen directs in line 275, but instead of giving Veronica time to respond, in line 276 she begins making a suggestion herself, '<L1 you could for instance (.) write L1>'. In both instances, Karen's directing seems to act as a demand on Veronica to be more active. Since being active in this activity involves a combination of factors, this is at the same time a language, cognitive and interactional demand. However, given that Veronica may be struggling to keep up, as

evidenced by the asynchrony in the pupils' composition in this part of the activity (cf. table 6.12 in sub-section 6.2.3), she does not appear able to respond as directed.

Finally, note that all Karen's directing is in Norwegian. This constitutes an additional support for Veronica, counterbalancing the metalinguistic demand on her to understand the instructions from the teacher and the task sheet, both of which were in English.

The directing activity in extracts 7.1 through 7.5 is revealing because it suggests a possible reason for why there is asynchrony in the pupils' composition, and more task management, in the beginning of the activity. That is, with Veronica unsure about how to do the task, the pupils spent more time on task management. This focus on task management comes in addition to focus on content and writing dialogue, and it may be that this more fragmented focus of attention constitutes an additional demand on Veronica, resulting in her taking more time to finish writing turns.

In sum, the directing activity associated with the beginning of the dialogue-writing activity offers some support for Veronica, possibly counterbalancing the fact that she has not understood the English language instructions for the activity. In addition, Karen's directing also acts as a combined language, cognitive and interactional demand on Veronica to be more active. Finally, the use of Norwegian in the directing activity constitutes a support, primarily for Veronica, which again counterbalances the metalinguistic demand of the task-as-plan measure to understand the English language instructions for the activity.

7.2.2   S-pattern in First Half of the Activity

The following is an analysis of the S-pattern in the first half of the dialogue-writing activity. It also represents the first overlap between the two phase organisations found in Veronica and Karen's learner interaction, as indicated by figure 7.1 (cf. section 7.1).

The S-pattern occurred in the micro-context of composition intervals, and would begin with a focus on content, which was followed by a focus on writing. Furthermore, in the first half of the dialogue-writing activity the focus on content was associated with Norwegian language use, and the focus on writing was associated with English language use. Finally, the focus on writing would sometimes extend into the asynchronous part of the composition intervals, when Karen was finished writing a turn, but Veronica was still writing it. The visual dynamical analysis illustrated this relationship using Veronica and Karen's composition of turn 4 in their role-play dialogue. Figure 7.2 repeats this illustration of the relationship between the writing and attention strands, and the language code thread, for this composition interval.
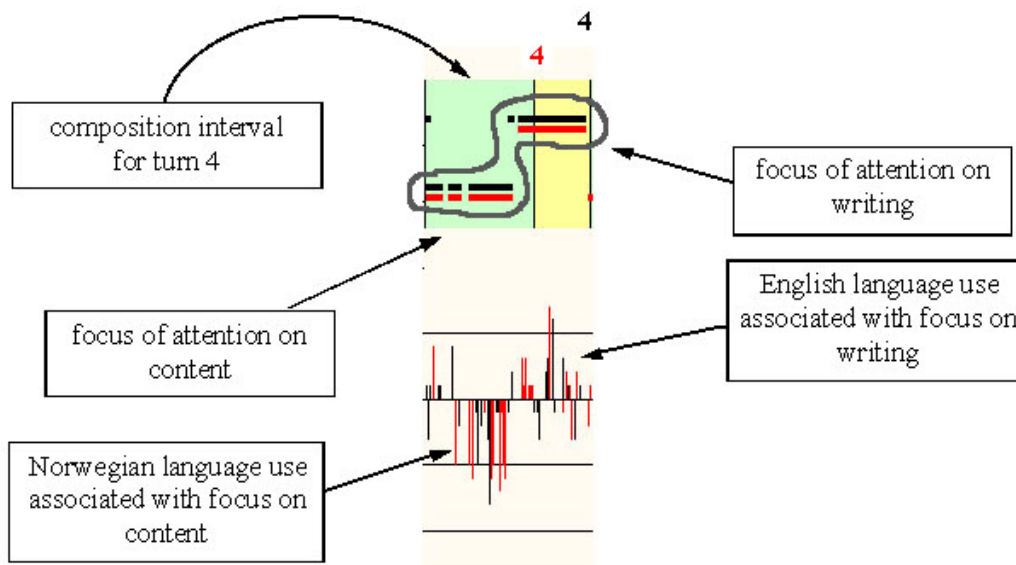
Figure 7.2: S-pattern and language code thread in first half of activity

Extract 7.6 contains the pupils' learner talk in the beginning of the composition interval for turn 4, where the pupils' focus of attention was on content. Since there is a range of different regulative activity in this part of the interaction, this extract, as well as other extracts in this sub-section, provides an indication of both prospective and non-prospective regulative activity in the column to the right in the extracts.

Extract 7.6: Composition interval for turn 4; focus on content

| | | | Regulative activity | |
Line	Speaker	Text	Non-prospective	Prospective
328	Veronica:	teacher._	Focusing	
329		(..) <L1 and then after L1> teacher,/	Focusing	
330	Karen:	Veronica._	Focusing	
331		I (1) want a answer./	Voicing	
332		(1.5)		
333	Veronica:	because --	Truncating	
334		(.) because --	Truncating	
		(9)		
340	Veronica:	I want a answer,/	Voicing	
341		(1)		
342	Karen:	<L1 and then (.) you can [maybe] L1> --	Focusing/truncating	
343	Veronica:	<L1 [maybe] like this L1>?/		Suggesting*
		(9)		

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349	Karen:	\<L1 and then we ehm take L1> --	Focusing/truncating
350		(1.5) \<L1 and then you could L1> ehm --	Focusing/truncating
351	Veronica:	\<L1 just L1> (..) ehm --	Truncating
352		(..)\<L1 I didn't feel like coming L1>./	Suggesting*
353		@@	
354		(2) \<L1 hold on L1>,\	Pacing
355		ehm ehm --	
356	Karen:	\<L1 [but] L1>	
357	Veronica:	\<L1 [ehm L1> X] \<L1 went with grandma L1>,/	Suggesting
358		\<L1 she almost died today you know L1>./	Suggesting
359	Karen:	\<L1 but it is is before the period L1>,/	
360		\<L1 she was outside during the break L1>./	
361	Veronica:	\<L1 yes L1>,_	
362		\<L1 [yes] L1>,_	
363	Karen:	\<L1 [but] then maybe we can write that L1> ehm --	Focusing/truncating
364		\<L1 I L1> --	Truncating
365		(..)\<L1 I played football a bit long L1>,/	Suggesting
366		\<L1 and then (1) I didn't hear the bell L1>./	Suggesting
367	Veronica:	\<L1 yes L1>./	

* Indicates prospective regulative activity that receives an uncooperative response (cf. sub-section 5.3.7).

In lines 328 through 330, which are at the beginning of the composition interval, both pupils focus the activity. The pupils have just finished writing a turn for the *teacher* (one of the fictional characters in the role-play; cf. appendix B). Veronica's utterance in line 329, '\<L1 and then after L1> teacher', illustrates this clearly. The pupils' focusing is combined with voicing what has just been written for the previous turn, by Karen in line 331, ('I (1) want a answer'), and by Veronica in line 340, ('I want a answer'). By keeping the previous turn in mind, this combination of voicing and focusing is a cognitive support helping the pupils to focus on content for the next turn in the dialogue.

The initial combination of focusing and voicing activity is followed by four instances of suggesting by Veronica, in lines 343, 352, 357 and 358, respectively. However, Veronica's first suggestion receives an uncooperative response, evidenced by the long pause between lines 343 and 349, and by Karen's refocusing of the activity in lines 349 and 350. Veronica's second suggestion also receives an uncooperative response from Karen. It is only after

Veronica's third suggestion that Karen reacts by explaining, in lines 359 and 360, why Veronica's (third) suggestion cannot work. In line 363 Karen again refocuses the activity, and then provides her own suggestion in lines 364 through 366. Throughout it appears that Karen's repeated refocusing serves as a cognitive support for her own generation of content, resulting in her eventual suggestion. It may also be that Veronica's suggestions provide additional cognitive support for Karen's suggestion.

The learner interaction in this extract reveals that Karen is dominant also in this phase of the activity. Veronica, however, seems both aware and accepting of Karen's dominant role. For example, Veronica's pacing in line 354 is almost defensive in its anticipation of an uncooperative response from Karen. Moreover, Veronica immediately accepts the suggestion Karen eventually makes, even though several of her own suggestions were rejected.

Finally, except for the pupils' voicing of what they wrote in the previous turn, in lines 331 and 340, as well as Veronica's truncated 'starts', in lines 333 and 334, all the pupils' language use is in Norwegian. This may act as a cognitive support for talking about content to include in the role-play dialogue. Furthermore, it potentially serves to break down the composition process into discrete stages, with the next possible stages being translation into English, and putting the English words down on paper.

Extract 7.7 contains the transcribed learner interaction for the subsequent part of the composition interval, where the pupils' focus of attention is on writing the dialogue. However, the extract only contains the remaining synchronous part of the composition interval. The asynchronous part that follows is presented in extract 7.8.

Extract 7.7: Composition of turn 4; focus on writing (synchronous)

Line	Speaker	Text	Regulative activity	
			Non-prospective	Prospective
367	Veronica:	<L1 yes L1>./		
368		(1) I (.) played,\	Voicing	
		(8)		
373	Karen:	I played foot(..)ball,/	Voicing	
374		(1.5) and,_	Voicing	
375		(1.5) I don't,/	Voicing	
376		(1.5) hear,/	Voicing	
377		(2) the,_	Voicing	
378		(1.5) [bell].\	Voicing	
379	Veronica:	FOOT[BALL],/		

The only regulative activity in extract 7.7 is the voicing activity in lines 368 through 378. Given the close relationship between Norwegian and English vocabulary (cf. Swan & Smith, 1987, p.27), this voicing may be a language support for the pupils' translation of the content, originally generated in Norwegian (cf. extract 7.6). At the same time, the voicing activity may be a language support for the pupils' writing of the English words.

As Karen finishes writing the turn, and the pupils move into the asynchronous part of the composition interval for turn 4 (cf. extract 7.8), Veronica is commenting on Karen's spelling of the word 'football', in lines 379 through 381. This indicates that Veronica pays attention to what Karen writes, and that Karen's fluent translation and writing is a potential language support for Veronica. The asynchronous part of the composition interval that follows shows several more overt forms of language support for Veronica's effort to write the turn. Veronica voices as she is writing, in lines 384, 385, 387, 398 and 400, and there are unsolicited offers for help from Karen, in lines 386, 394 and 399. Veronica also makes two confirmation checks, in lines 392 and 395.

Extract 7.8: Composition of turn 4; focus on writing (asynchronous)

			Regulative activity	
Line	Speaker	Text	Non-prospective	Prospective
379	Veronica:	FOOT[BALL],/		
380		(2) FOOT- --		
381		(..) FOOTBALL <L1 you wrote L1>.\		
		(3)		
384	Veronica:	I play- --	Voicing/truncating	
385		I played football,/	Voicing	
386	Karen:	and I don't hear the bell./		Helping
387	Veronica:	and (..) I (1.5) don't (.) listen the --	Voicing/truncating	
388		(..) <L1 no L1>.\		
389	Karen:	@@		
		(4)		
392	Veronica:	don't (.) hear?/		Negotiating
393	Karen:	<L1 yes L1>./		
394		(..) the bell./		Helping
395	Veronica:	the?/		Negotiating
396	Karen:	the,_		
397		(.) T H E./		Helping
398	Veronica:	T H [E] --	Voicing	
399	Karen:	[the] bell._		Helping

400	Veronica:	bell./	Voicing
401		(..) ehm --	
		(5)	
405	Karen:	\<L1 and then L1\> teacher./	Focusing

The interaction, including Karen's unsolicited help, appears both effective and sympathetic in the asynchronous part of the composition interval. For example, Veronica's voicing in lines 384, 385 and 398 enables Karen to utter exactly those words that Veronica needs to write next. Karen also gives a sympathetic chuckle ('@@'; cf. appendix E) in response to Veronica's self-correction in line 388. Hence, the regulative activity in this part of the S-pattern seems to be both language and interactional support for Veronica.

In sum, the analysis of the S-pattern in the first half of the activity shows that the pupils' language code and regulative activity offers cognitive, language and interactional support. By contrast, the interaction does not seem to introduce any task demands beyond what is already present in the task-as-plan measure (cf. table 7.1 in this section). In other words, the S-pattern in this first half of the dialogue-writing activity seems to provide a great deal of support, but does not seem to introduce any additional demands on the pupils. Moreover, some of this support is a result of the relationship between the S-pattern and the language code thread.

7.2.3   S-pattern in Last Half of the Activity

The following is an analysis of the S-pattern in the last half of the dialogue-writing activity. It also represents the second overlap between the two phase organisations in Veronica and Karen's learner interaction, as indicated by figure 7.1 (cf. section 7.1).

For the last half of the dialogue-writing activity, the visual dynamical analysis in chapter six illustrated the relationship between the writing and attention strands, and the language code thread, with the composition interval for turn 8. The illustration of this composition interval is repeated in figure 7.3. The figure shows that the S-pattern in this part of the activity was not as 'neat' in its progression from focus on content to focus on writing. In addition, as compared to the S-pattern in the first half of the activity (cf. figure 7.2 in the previous sub-section), there is less association between the alternating focus of attention and the pupils' use of Norwegian and English.
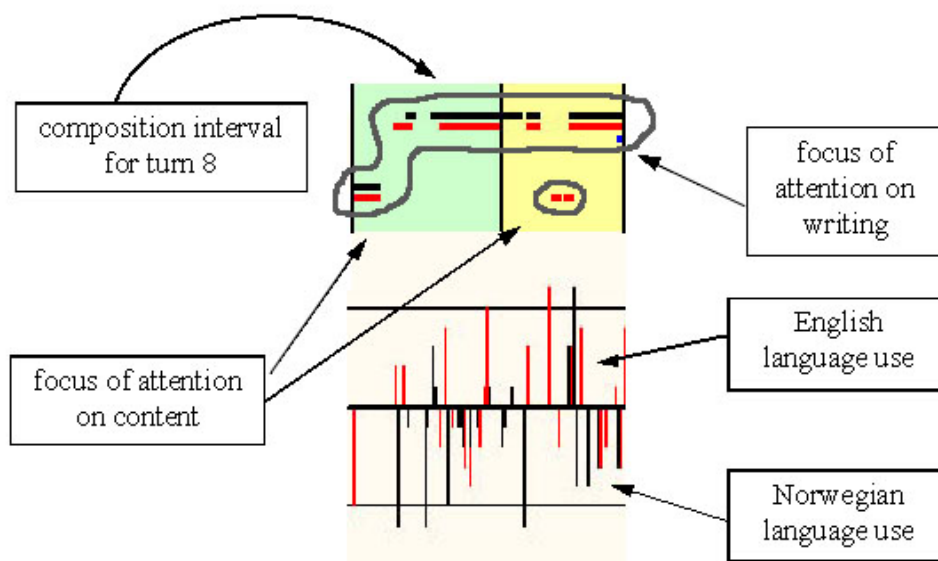
Figure 7.3: S-pattern and language code thread in last half of activity

Extract 7.9 represents the pupils' learner talk in the first part of the composition interval for turn 8, where their focus of attention is on content. Note that this is a very short segment of interaction, beginning with Karen focusing in line 633 ('<L1 and then we say for L1> Veronica'; Veronica is the name of the second fictional character in the role-play). This is followed by a number of lines with the marginal sound 'ehm' (which is equivalent to 'er' in English language transcription, cf. appendix E). Note that this marginal sound was not coded in the language code thread (cf. sub-section 5.3.5). This explains why there is almost no language use associated with the initial period of focus on content in the composition interval for turn 8 in figure 7.3. Finally, there is a long pause after line 639, which is followed by pupils' focus of attention switching to writing dialogue (cf. extract 7.10). In other words, save the one line with Karen's focusing activity, and the marginal thinking noises, there is no talking-and-thinking in the generation of content for turn 8. As will become clear from the subsequent analysis, what in fact happens here is that Karen is generating the content for turn 8 by herself. Since Veronica does not know what will be written, Karen's dominance, expressed in this form, adds a cognitive demand on Veronica's later writing of the turn.

Extract 7.9: Composition of turn 8; focus on content

			Regulative Activity	
Line	Speaker	Text	Non-prospective	Prospective
633	Karen:	<L1 and then we say for L1> Veronica --	Focusing	
634		ehm --		
635		ehm --		

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636	Veronica:	ehm --
637	Karen:	ehm --
638	Veronica:	ehm --
639	Karen:	ehm --
		(12)

Extract 7.10 shows the remainder of the synchronous part of the composition interval, where the pupils' focus of attention is on writing the dialogue. From Karen's voicing in line 646 it is clear that she has already written 'I, I, I, I, I' (the beginning of turn 8) in the 12 second pause before line 646. Karen's voicing activity is followed by very overt pacing by Veronica in line 647, ('<L1 now I am really far behind L1>'). The overt nature of this pacing seems to confirm that the lack of talking-and-thinking in the generating of content for the turn resulted in cognitive demand on Veronica.

In line 650 Veronica can be seen uttering the letter 'e' several times. Then in line 656 she states, '<L1 we should not write the same L1>'. However, this directing activity seems to go unnoticed by Karen. It is clear from the later discourse that Veronica is developing an interest in writing the letter I the correct number of times. It also appears that this interest distracts from her writing, and that she therefore places a demand on herself.

Extract 7.10: Composition of turn 8; focus on writing (synchronous)

Line	Speaker	Text	Regulative Activity	
			Non-prospective	Prospective
		(12)		
646	Karen:	foot (...) ball (…) outside --	Voicing/truncating	
647	Veronica:	<L1 now I am really far behind L1>./	Pacing	
648		(...)		
649	Karen:	football (.) outside (.) ehm --	Voicing/truncating	
650	Veronica:	e e e e,_	Voicing	
651		(..) <L1 look we don't write the same L1>./		
		(8)		
656	Veronica:	<L1 we should not write the same L1>./		Directing*
657		(..) <L1 only L1>,_		
658		we are (..) [XX] class,/		
659	Karen:	<L1 [hand on] L1>,_	Pacing	
660		(…)		

661	Veronica:	I I I @@,_	Voicing
662	Karen:	E E I played outside the --_	Voicing/truncating
663	Veronica:	<L1 how many Es did you write L1>?/	Questioning
664		(1)	
665	Karen:	<L1 Es L1>?/	Negotiating
666	Veronica:	<L1 yes L1>,/	
667		E E E,_	
668		<L1 or A L1>?\	Negotiating
669	Karen:	<L1 I write Æ L1>./	
670	Veronica:	<L1 oh Æ L1>.\ @	
671	Karen:	<L1 but that doesn't exist L1>./	
672		(2)	
673	Veronica:	e e e,_	Voicing
674	Karen:	<L1 hand on L1>,_	Pacing
675		I I I I,\	Voicing
676		I played football outside the s- --	Voicing/truncating
677	Veronica:	I I I (..) I,_	Voicing
		(5)	

While Veronica is occupied with the letter I, Karen goes on writing the sentence fairly unperturbed, providing her own cognitive and language support in the form of voicing and truncating activity in lines 649 and 662, and pacing activity in line 659. However, in line 663 Veronica finally asks Karen how many times she used the letter I (or E). This triggers a lucid exchange over which letter was used, including an aside about using the letter Æ, which does not exist in English. This exchange, including Veronica's initial question in line 663, and the negotiation that follows, provides a type of cognitive, and maybe also interactional support for achieving something that appears to be important for Veronica.

Veronica remains preoccupied with the letter I for the remainder of the synchronous composition interval. Karen, however, continues to provide her own cognitive and language support in the form of additional pacing, voicing and truncating, and finishes writing turn 8 somewhere in the five second pause that appears after line 677, at the end of extract 7.10.

Extract 7.11 shows the learner talk in the asynchronous composition interval, when Karen is finished, but Veronica is still writing turn 8. In the beginning of this extract Veronica is still preoccupied with the letter I. Then, in line 684 she can be seen voicing the next word in the turn she is attempting to write ('played'). In contrast to the asynchronous part of the S-pattern in the first half of the activity (cf. extract 7.8), the pupils' focus of attention seems to be diverging in this asynchronous interval. That is, although both pupils appear to be focusing on writing dialogue, Veronica is still writing turn 8, and Karen is focusing on writing turn 9.

Maybe as a result of this diverging focus of attention, Karen does not offer any unsolicited help to Veronica. Instead, Karen engages in non-prospective regulative activity of her own, in lines 696, 700, 707, 714 and 721, supporting her own writing of turn 9. Hence, the diverging focus of attention creates an added language demand on Veronica.

In order to get Karen's attention, Veronica asks the explicit question, '<L1 what are you writing there L1>?', in line 688. Her confirmation check in line 702 also functions to get Karen's attention. Note that Veronica did not have to be active in this way in the first half of the dialogue-writing activity, where Karen offered unsolicited help. Hence, in this part of the dialogue-writing activity Veronica uses questioning and negotiating to create her own language support.

Extract 7.11: Composition of turn 8: focus on writing (asynchronous)

Line	Speaker	Text	Regulative Activity	
			Non-prospective	Prospective
		(5)		
681	Veronica:	<L1 how many L1>?\		Questioning*
682		øj øj øj --	Voicing	
683		(1) ehm --		
684		(1) played,_	Voicing	
		(6)		
688	Veronica:	<L1 what are you writing there L1>?/		Questioning
689	Karen:	I played football,/		
690		(.) outside the school._		
		(9)		
696	Karen:	you know that it's not --	Truncating	
		(6)		
700	Karen:	<L1 hold on L1>.\	Pacing	
701		(1)		
702	Veronica:	outside the school?/		Negotiating
703	Karen:	outside [the school].\		
704	Veronica:	[I I I] played football outside the school./		
705		(.)<L1 and nothing more L1>?\		Negotiating
706	Karen:	<L1 yes L1>./		
707		(1) you know that is --	Voicing/truncating	
708		(2)		

709	Veronica:	T (.) H (.) [E] A --	Voicing/truncating	
710	Karen:	[Tina]./		
711		(..) Tina.\		
712	Veronica:	T H E --	Voicing/truncating	
713		[ehm] --		
714	Karen:	[<L1 hang on L1>],_	Pacing	
715		<L1 what is L1> --	Truncating	
716		(...)		
717	Teacher:	hmh?\		
718	Karen:	teacher.\	Focusing	
719	Veronica:	ehm <L1 what does it say there L1>?_		Questioning(*)
720	Karen:	<L1 but you know L1>,\		
721		you know that is --	Truncating	

In sum, the form that the S-pattern has taken on in this last half of the dialogue-writing activity is related to additional cognitive and language demands for Veronica. In addition, the diverging focus of attention in the asynchronous part of the composition interval (cf. extract 7.11) seems to compel Veronica to create her own cognitive and language support through negotiating and questioning activity. Karen also provides her own cognitive and language support through a variety of non-prospective regulative activity. Finally, it seems as if Veronica's insistence on writing the letter I the correct number of times distracts her from writing the remainder of the turn, and that this places an additional cognitive demand on her.

7.2.4   End of the Activity

Just as at the beginning of the dialogue-writing activity (cf. sub-section 7.2.1), the end of the activity was characterised by asynchrony in the pupils' composition, the presence of task management, fragmented focus of attention, use of mostly Norwegian, and directing, but no focusing, by Karen. Hence, the analysis of the end of the activity will also use Karen's directing activity as a starting point. However, the interaction in this part of the activity seemed to include elements that could not be explained by Karen's directing activity alone. Hence, the extracts and discussion in this sub-section also cover regulative activity other than directing.

Extracts 7.12 and 7.13 reflect Karen's directing activity in this final part of the dialogue writing activity. In the first of these extracts, Karen directs the activity by saying, '<L1 we don't write that L1>', in line 803. She says this as she erases something she has just written. Then in line 807 she focuses the composition of a 'storyteller turn'. In the context of the role-play tasks in this class, the appearance of a storyteller usually signified the end of the role-

play. Hence, signalling the end of the activity through a storyteller turn may have provided the pupils with a type of cognitive support.

While Karen is erasing what she wrote, Veronica is still busy writing an earlier turn. Nevertheless, she did notice what Karen wrote, and then erased. Consequently, in line 811 she repeats part of the turn Karen erased ('nooo help'). From the learner talk that follows it appears as if this is an appeal (negotiation), which if fully verbalised would read, "but what happened to 'nooo help'. I wanted to write that". In line 812 Karen responds by repeating her decision to exclude the turn. This is followed by two further appeals by Veronica to include what Karen erased. However, each time Karen responds by rejecting Veronica's appeal. Taken together with Karen's focusing of a storyteller turn, this further directing may be interpreted as Karen wishing to finish the role-play dialogue.

Extract 7.12: Karen's directing activity at the end of the activity

Line	Speaker	Text	Regulative Activity	
			Non-prospective	Prospective
802	Karen:	nei,_	Focusing	
803		<L1 we don't write that L1>.\		**Directing**
804		(2)		
805		(2)		
806		(2)		
807	Karen:	<L1 and then its storyteller L1>.\	Focusing	
808		(...)		
809	Veronica:	<L1 what is that L1>?\		Questioning
810	Karen:	<L1 story[teller] L1>._		
811	Veronica:	[nooo] help,/		Negotiating
812	Karen:	<L1 no but ehm [we don't write that] L1>./		**Directing**
813	Veronica:	<L1 [but please] L1> ./		Negotiating
814	Karen:	<L1 no L1>._		**Directing**
815	Veronica:	<L1 please L1>./		Negotiating
816		(1) <L1 but it's so fun to write L1>./		
817	Karen:	<L1 yes but we don't have room for more L1>./		**Directing**

The interaction contained in extract 7.13 takes place about a minute after the episode in extract 7.12. An analysis of this next extract reinforces the above interpretation of Karen's directing activity. In line 847 Veronica asks to see what Karen has written (for the storyteller turn). Karen responds uncooperatively with a simple '<L1 no L1>' in line 848. However,

Karen quickly continues (note the overlapping speech denoted by the square brackets in lines 849 and 850; cf. appendix E) by explaining that only she will perform the storyteller turn, and that Veronica therefore does not need to write it. Karen's next directing activity, in line 852 ('<L1 yes we practice here L1>'), signals that she wants to begin rehearsing the dialogue. This also reveals that, according to Karen, they are finished writing the role-play dialogue. However, in lines 853 through 856 Veronica again reiterates the suggestion to include a turn similar to the one Karen had erased (cf. extract 7.12). Nevertheless, Karen persists and responds in line 857, '<L1 no but then we don't get any conclusion L1>'. This, combined with the teacher's call for everyone's attention in lines 860 and 861, suggests that Karen erased the disputed dialogue because there was only a limited amount of time left to complete the role-play dialogue.

Extract 7.13: Karen's directing activity at the end of the activity

Line	Speaker	Text	Regulative Activity	
			Non-prospective	Prospective
846	Karen:	<L1 there L1>._	Focusing	
847	Veronica:	<L1 can I look at that L1>?/		Questioning*
848	Karen:	<L1 no L1>./		
849	Veronica:	<L1 [but] L1> --		Negotiating
850	Karen:	<L1 [yes but] you don't need to write that L1> ,/		**Directing**
851		<L1 because only I will say that L1>./		
852		(1) <L1 yes we practise here L1>.\		**Directing**
853	Veronica:	ohhh\		
854		<L1 but I can L1> --	Truncating	
855		<L1 then I will simply say L1>,_		
856		oh no help me I <X really X> don't know._		Suggesting
857	Karen:	<L1 no but then we don't get any conclusion L1>./		**Directing**
858	Veronica:	okay,_		
859		<L1 I will simply write T L1> end <L1 then L1>?\		Negotiating*
860	Teacher:	okay,\		
861		can everyone listen --		

In sum, Karen's directing activity at the end of the dialogue-writing activity seems to exclude Veronica from the decision making process. This places a cognitive and language demand on Veronica's writing of the final turns. Moreover, by being keen to write more dialogue, Veronica seems to place an additional demand on herself. That is, she has to argue her point at the same time as she is writing the last turns of the role-play dialogue. It also places a

cognitive demand on Karen as she has to expend effort defending her decision. Nevertheless, in the end, Karen's directing seems to ensure that the pupils complete their role-play dialogue in time.

7.3   Summary and Discussion

Table 7.2 (see next page) provides a summary of the demands and support that are related to the patterns and phases in Veronica and Karen's learner interaction.

The summary shows that at the beginning of the dialogue-writing activity Karen's directing acts as a demand on Veronica to be more active, as well as a support for Veronica that counter-balances the task-as-plan demands for understanding the instructions for the activity. Furthermore, the use of Norwegian is an additional support for Veronica to understand what is required by the activity.

The summary also shows that the regulative activity associated with the S-pattern in the first half of the dialogue-writing activity acts as a support for the pupils' formulation of content and writing in a range of ways. Moreover, the pupils' create this support for *each other*. However, the summary also shows that the S-pattern is not related to any additional demands beyond those already present in the task-as-plan measure (cf. table 7.1 in the previous section). Hence, the S-pattern in this part of the activity does not appear related to the appropriate balance between demands and support, as prescribed by Cameron's framework (cf. sub-section 3.1.1). For example, if the pupils had used English in generating content for turn 4, this would have acted as an additional demand, and such a demand would have challenged the pupils to make a closer link between ideational content and the language they are learning.

In the S-pattern in the last half of the dialogue-writing activity, the pupils' regulative activity creates both demands and support. However, all of these demands are on Veronica. For example, the absence of any overt talking-and-thinking in the formulation of content results in Veronica not knowing what to write for turn 8. In addition, this demand appears to be compounded by Veronica's insistence on getting details right, as well as the pupils' divergent focus of attention. Finally, in the context of this divergent focus of attention, the pupils appear responsible for creating their own separate support for writing the turn. Veronica does this by asking questions and negotiating, and Karen does it by truncating, voicing and pacing. In other words, whereas there are both demands and support in this S-pattern, the pupils do not create this balance between demands and support 'together'.

INSERT TABLE 7.2

Finally, the demands associated with the end of the dialogue-writing activity are very different than those at the beginning of the activity. This is somewhat contrary to the outcomes of the visual dynamical analysis, where in terms of the first phase organisation (highlighted in yellow and green in figure 7.1 in section 7.1), the beginning and end parts of the dialogue-writing activity appeared very similar (cf. table 6.12 in sub-section 6.2.3). In fact, except for how Karen creates support by keeping the end of the activity in sight, the demands and support in the end of the activity are similar to those associated with the S-pattern of the last half of the activity.

The summary of the demands and support in table 7.2 indicates that the two phase organisations in Veronica and Karen's interaction are related to different demands and support across the timescale of the dialogue-writing activity. For example, Karen's directing activity in the beginning of the activity appears consistent with the first phase organisation (dividing the activity into a beginning, a middle and an end phase). Moreover, the similarity in the demands and support across the last half of the dialogue-writing activity (i.e., the S-pattern in the last half of the activity and the Karen's regulative activity at the end of the activity) may be better explained in terms of the second phase organisation (dividing the task into first and last phases). Finally, the two S-patterns that were analysed, i.e., the S-patterns in the composition intervals for turns 4 and 8, were related to different demands and support. That is, in the S-pattern for turn 4 there was a lot of support, but no new demands on the pupils, while in the S-patterns for turn 8 there was support, but this support was generated differently, and there were new demands on the pupils. This difference between the two S-patterns also seems best explained by the second phase organisation in the pupils' interaction (dividing the task into first and last phases). The above observations seem to confirm the dynamic interrelationship between the patterns and phases identified in these two pupils' learner interaction in chapter 6.

The in-depth analysis, and the summary in table 7.2, seems to portray the pupils as struggling to establish an agreed upon approach to the dialogue-writing activity. For example, in the first half of the dialogue-writing activity Karen appeared keen to include Veronica. This is evident from Karen's admonitions for Veronica to participate more fully in the beginning of the activity (cf. sub-section 7.2.1), as well as Karen offering unsolicited help to support Veronica's writing of turn 4 (cf. sub-section 7.2.2). By contrast, in the last half of the dialogue-writing activity Karen seems to abandon her attempts to include Veronica. That is, in the composition of turn 8 she does not share what content she formulates. In addition, once Karen had finished writing turn 8 she moved on to generating content for, and writing turn 9, leaving Veronica to create her own support for writing turn 8. Finally, at the end of the dialogue-writing activity Karen made sure they managed to finish writing the role-play dialogue, and in the process seemed uncooperative towards Veronica's contributions.

The struggle to agree on an approach to the dialogue-writing activity may relate to the fact that Karen was assessed as academically stronger than Veronica (cf. sub-section 4.3.2). The data collected from the follow-up activities (cf. sub-section 4.4.3) confirmed that both pupils were aware of this difference in academic ability. For example, when the pupils were asked to write a single agreed upon version of their separate role-play dialogues in the researcher's notebook, there were several instances were Veronica would comment that what she had written in her version was probably incorrect, and that they should follow what Karen had written. More strikingly, in the follow-up activity for the second role-play task (in May 2000), the pupils put Veronica's version aside, and copied what was supposed to be a 'single agreed upon version' directly from Karen's version. Hence, it is likely that Karen's dominant role in this learner dyad, as well as both pupils' attempts at coming to grips with the difference in their academic abilities, will have affected the dynamics of their learner interaction.

In sum, using the outcomes of the visual dynamical analysis to select episodes for in-depth analysis has revealed insights that reflect the dynamics of Veronica and Karen's learner interaction. Another way of viewing this is that the in-depth analysis has added insights to the findings produced by the visual dynamical analysis. This goes some way towards validating the usefulness of the visual dynamical analysis, and provides an illustration of how visualisation may be used in conjunction with another method of analysis.