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Pacing and time allocation at the micro- and meso-level within the class hour: Why pacing is important, how to study it, and what it implies for individual lesson planning

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Introduction

Pacing is present in every decision in the day-to-day practice of the classroom, since time is a constant element of the class. Teachers often ask themselves: How long do I spend on an activity, and how long should I have students spend talking to each other during paired activities? How do I end one activity and start another? How do I present and model an activity to students? What additional tools can I use to help students understand my presentations of the activities they are supposed to do? How do I make the various elements of one class hour fit together?

These questions address several of the constituent topics of pacing, which include time allocation; transitions; framing and modeling; scaffolding; and sequencing, respectively. Each of these elements plays an integral role in how the fabric of the class hour is stitched together. By considering these items generally and examining the first of them in detail, this paper hopes to add to our understanding of the constitutive components of time in the classroom.

Historically, pacing by and large seems to have been seen as something teachers intuitively "just know how to do." In fact, to my knowledge, little research has specifically treated pacing, with the work that looks at pacing focusing more on larger questions like the sequencing of didactic units rather than on the day-to-day sequencing practice in the classroom. (See §2.) While daily pacing is admittedly just one of the many elements that make up teaching practice, its integral position—tied to the fact that time is continually "ticking by" in the classroom—affords pacing a unique and important position in the study of teaching practice.

This paper thus examines a case study in an attempt to provide an introduction to the field of pacing and shed light on one of its sub-components, time allocation and the timing of activities. Hopefully, the results will allow for continued reflection on and attention to this vital element of the classroom.

Literature Review

In 1975, Andrew Cohen argued that:

> sometimes, sequencing and pacing of elements in a second language course is rather arbitrary. More research is needed to determine whether the learner's built-in language learning sequence differs from that of the teacher or the curriculum writer (p. 420).

While researchers have dedicated a reasonably large literature to Cohen's first concept, sequencing in the foreign language classroom (see Mackey, 1965; Nunan, 1989; Ellis, 2003)**,** the second thrust of Cohen's suggestion—pacing—has been discussed much less over the course of the last thirty years, with pacing usually a brief mention in the context of larger pedagogical discussions.

Indeed, PsycInfo and ERIC searches using a variety of keywords ("pacing," "sequencing," "lesson planning," "transitions," and "time factors" in various combinations and paired with "language," "foreign language," "language learning," "language teaching," and "activity/activities"), a Google scholar and Google books search using the same keywords, and an in-person search of the literature collections on foreign language pedagogy and English teaching at a large research university unearthed less than twenty references to pacing. These references are presented in summarized form in Table 1, along with criticism detailing the scant treatment of pacing therein.

Pacing references in the literature

Author (year)	*Content*	*Criticism*
Finocchiaro (1958)	Multi-step lesson plan for teaching language; argues that teacher should spend 5 minutes stating aim, 7 minutes on developing new item, and majority of class time on aural-oral practice of material	Structuralist/audiolingualist: did not produce long-term communicative ability in students (Richards & Rodgers, 1986)
Berwald (1974)	Brief mention in discussion of instructing student-teachers	Single mention, no elaboration
Cohen (1975)	Brief mention in discussion of instructing student-teachers	Single mention, no elaboration
Bolinger, Ferguson, Ledford, & Weissberger (1979)	Praises a teacher-trainer who has passed away, who stressed "tight structuring of class time…meticulous preparation, the importance of the lesson plan, and…allot[ing] a specific amount of time--never more than ten minutes--to each activity" (p. 249)	Argues pacing relevant to training teacher-trainers without discussing how to do so

Byrne (1980)	Lesson plan with time guidelines; suggests using 8 different (but related) activities in span of 45-50 minutes	Does not explain how to decide on lengths of time each activity should occupy
Omaggio Hadley (1993)	Provides sample lesson plan; argues that teachers should plan lessons around a theme and plan transitions to flow logically between one activity and the next	Discusses pacing little, but talks about useful adjacent concepts of meso-sequencing and transitioning
Willis (1996)	Provides sample lesson with detailed pacing notes; discusses grading of activities	Does not explain how to extrapolate sample pacing to other lessons/whether one should
Gatbonton (1999)	Studied experienced teachers; found these teachers considered relevant pacing-related topics (apportioning time, adjusting pace, framing activities)	Does not detail what pacing and transitioning mean to experienced teachers or how to use these techniques in the classroom
Arthur (2000)	Brief mention: argues good lessons should have good pacing and sequencing of activities	Does not explain this claim
Curtain & Dahlberg (2004)	Pace activities for students in grades K-8 at 5-8 minutes apiece (7-12 activities/hour)	No elaboration/justification
Niko (2006)	Practicing teacher argues that body language can indicate student interest/lack of focus and signal to teacher when to change activities	Brief reference in online forum; does not describe these cues in detail
Fortin (2008)	Argues that attention span is half of student's age; younger students need simpler activities with more repetitions; each activity should be carefully apportioned in the lesson plan; individual differences and age differences play role in differentiating pacing	No research basis to this argument provided; more specific criteria necessary

Table 1. Pacing references in the literature

Definitions: Pacing, grading, sequencing, and transitions at the micro-, meso-, and macro-levels

As shown in table 1, texts that discuss pacing and related phenomena tend to do so *a priori*, without providing definitions of the terms they employ. This article attempts to develop some definitions, following Gajo's (2008) distinction between the micro-, meso-, and macro- levels in the classroom. (As in Gajo´s formulation, all three levels can be relevant to an individual moment in the classroom: for example, a sub-activity of a larger activity in a sequenced lesson that takes place within a sequenced curricular unit contains elements of sequencing at the micro-, meso-, and macro-levels, respectively.) Although space considerations will prevent in-depth considerations of all components of pacing described in this section, the definitions offered here nevertheless offer perspective on the potential breadth of the field.

Pacing is the rhythm and timing of classroom activities or units, which includes the way time is allocated to each classroom component and the process of how one decides that it is the right moment to change to another activity, sub-activity, or sub-sub-activity. This paper studies the micro- and meso-levels of pacing—that which happens within one class period. However, within the United States some schools and districts have begun to use the term *pacing* at the macro-level, generating various "pacing guides" for distributing content over the course of a year's curriculum (see, e.g. Grimsley, 2005; Corrales, 2007; Duval Country Public Schools, 2007).

Although *tasks* have been studied extensively (see, e.g., Ellis, 2003 for review and synthesis), classroom elements such as teacher-fronted grammatical review, journaling, taking a test, and a student-initiated question-answer sequence that seeks to clarify a concept are not tasks. This paper works with the more general hyperonym *activity* rather than its hyponym *task*, defining an *activity* as the union of two or more sub-activities centered around a common theme. (See §6 on segmenting lessons into sub-activities.) Nevertheless, literature on grading and sequencing tasks provides a useful framework which can be extended to studying pacing.

In order to look at how tasks should be ordered, researchers work with the concept of *grading*. Grading involves determining *task complexity*, which is

> […] the result of the attentional memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner. These differences in information processing demands, resulting from design characteristics, are relatively fixed and invariant (Robinson, 2001, p. 29).

After determining how difficult a task is (see Ellis, 2003; Robinson & Gilabert, 2007), curriculum designers and lesson planners have a better sense of how to fit that task into the larger scheme of a lesson or unit.

Sequencing deals with the stringing together of individual classroom activities (and the chronological organization of their sub-components). Research literature has nearly always treated sequencing at the macro-level (see Mackey, 1965; Nunan, 1988, 1989; Ellis, 2003; although see Fortin, 2008 who discusses sequencing in a general classroom context).

Finally, *transitions* constitute the "space between" individual activities and/or sub-activities and even between lessons. (This definition of transitions differs from that

of Markee (2004; 2005), who has discussed transitions between *interactional turns*; theoretically, "super-micro-transitions"). Transitions are *not* the framing of the next activity (considered a separate sub-activity) but rather the time *in between* activities. Indeed, by the definition proposed here, transitions end the moment the instructor begins to present the next activity.

For example, a transition might entail a professor saying "All right, everyone stop and listen." The "all right" and "stop" in the above example reflect the fact that transitions are usually accompanied by specific linguistic markers (English 'right,' 'well,' 'good,' ok,' 'now' in Sinclair & Coulthard, 1992; such as Spanish bien 'ok, well' in De Fina, 1996), which can also signal the shift into the next activity.

Table 2 shows how pacing, grading, sequencing, and transitions might be visualized as they operate at the micro-, macro-, and meso-levels.

Examining major concepts at the micro-, meso-, and macro-levels

	Micro-level	Meso-level	Macro-level
Pacing	Deciding how long to spend on one activity and its various sub-activities	Deciding how long to spend on various activities in the class period in relation to one another	Determining how to distribute various activities, concepts, or units within longer frames (e.g. week, month, semester, year)
Sequencing	Ordering of sub-activities	Ordering activities within one class period	Ordering content, units, or lessons
Grading	Determining difficulty of an individual activity or sub-activity	Determining difficulty of activity sequences or entire lessons	Determining difficulty of whole units or curricula
Transitions	Transitioning within activities (between sub-activities)	Transitioning between activities	Transitioning between didactic units or curricular content

Table 2. Examining major concepts at the micro-, meso-, and macro-levels

Research questions

As indicated in §1 and §3, this study aims to provide a research-based description of meso- and micro-pacing and time allocation at the individual class level. Section §1 discussed some of the many questions that have not been answered in the research literature on this subject. This paper narrows its focus to consider five questions, whose answers play out in the data and which help to provide a descriptive summary of the pacing of the classroom:

1. How does the teacher organize activities and sub-activities—how much time is given to each type of activity or sub-activity?
2. What pacing tools help maximize time "on plan"?
3. What pacing tools help allow for more time in communicative, paired work?
4. How might pacing change diachronically in relationship to student experience with the teacher's teaching style and the target language?
5. What are the implications of pacing and time allocation on planning and implementing individual lessons?

Studying one teacher's practice in depth will provide one set of possible answers to these questions, shedding more light on the overarching question of the field, which asks: "What are possible practices of micro- and meso- sequencing, pacing, and transitioning?" This study is not intended to provide definitive, "be all and end all" answers about pacing, but rather simply aims to use a case study to provide one possible set of answers to some of the fundamental questions of the field.

The case study: population and teaching methodology

The data come from a first-semester introductory German class at a top-tier American university in Fall 2006. Students attended class one hour daily for 12 weeks; sixteen students from age 18 to 22 participated in the class studied. It is important to understand this population not only as adult learners but as a particularly motivated kind of adult learners: these high-performing students attended a non-required language class early in the morning every day and completed at least an hour of daily homework (see Goldsmith, 2007), thus constituting very motivated individuals and a unique population for study.

The teacher observed in this case study employed a highly nuanced teaching methodology which attempts to blend the literatures on communicative and task-based

learning with the needs of students, which, according to the professor, include "wanting" to learn the grammar. Major characteristics of this methodology, along with the professor's justifications for these choices, are presented in Table 3.

Teaching methodology and theoretical justifications therefore (according to the teacher)

Element	Justification
Partnered task-based interaction	• Keeps students awake and focused • Allows for significant output and interactive negotiation of meaning (see Swain, 1985, 1995; Gass & Varonis, 1994; Bitchener, 2004; Mondada & Pekarek Doehler, 2004)
Limit teacher talk, significant student talking	• Studies reflect high teacher talk (e.g. 70% in Chaudron, 1988) • Student talk through communicative tasks will "develop the cognitive skills needed to produce real (spontaneous) meaning-based speech (what the learner really wants to say)"
"Rhythm"; importance of careful planning and sequencing, including at framing and subordinate task level	• Begin easy with warm-ups, etc., to reactivate vocabulary before moving to more complicated tasks • Employ more complicated tasks and higher cognitive load in later months of class; initially, maintain in "here and now" with simple instructions, short sentences, miming, deictic references (pointing), and cognates to facilitate comprehension
Employ diversity of tasks in classroom	• "Task variation focuses and keeps attention" • Tailor to individual needs (age, personalities, abilities) of students; allow variations in levels of difficulty within tasks (see Nunan, 1993)
Make teacher-fronted activities interactive if possible	• e.g. pronunciation practice, student-initiated questions
Justify reasoning for using foreign language for communication from day 1	• Keep students in foreign language by explaining the "game and reasons for playing the game; necessity of interaction and input, etc."
View lessons as a coherent whole that flows	• "Do not think of tasks as the building blocks of a classroom – otherwise you'll be tempted to go through task after task, with no explanation. Instead, think of tasks as an integral part of the hour, which consists of teacher-fronted explanations, student-to-teacher interactions, some pedagogic work, [and] some communicative work – with pacing and variety in mind all the time"

Quotations from personal communication, Nov. 15, 2005, and Rankin (2005)

Table 3. Teaching methodology and theoretical justifications therefore (according to the teacher)

Data collection and analysis

During the Fall semester of 2006, the teacher videotaped all of his classes as part of a larger project to study teacher presentation of activities in the classroom. The camera

was positioned at the back to the classroom facing the teacher and thus captured primarily the students' backs. Audio data captured was also primarily teacher utterances; the teacher wore a clip-on microphone to facilitate data collection.

The data discussed in this paper is drawn from the first and last classes in the data set, recorded on Tuesday, October 3, 2006, and Wednesday, November 29, 2006; these are classes during the third and tenth weeks of instruction, respectively. These lessons, the beginning- and end-points in the data set, were selected in an attempt to see how pacing might differ over time.

Classes were transcribed in their entirety using Elan, a transcription program which allows for precise measurement of time (to the tenth of a second). The data coding procedure included three steps: segmentation, classification of segments, and transcription of gestures.

Data was first segmented into *sub-activities* by observing visual cues from the teacher. The teacher kept his lesson plan on a series of flash cards; it was easy to see changes in activities as they entailed the teacher flipping through his flash cards. Other visual cues, such as writing jump-off words on the board, turning off the projector, and providing visual and audio cues (see Goldsmith, 2008) also helped indicate transitions between activities.

To help understand the segmentation process, we consider a sample from the beginning of the November 26, 2009 lesson (between 00:28 and 00:43). When the fragment begins, students are engaged in a communicative paired oral activity; the teacher is interacting with the students, and in (2), responds to an unintelligible student question by postponing an explanation of the grammar point queried. After ending the interaction with a positive verbal affirmation (2) and visual closure marker (3), students continue working and the teacher begins to prepare the next activity, flipping through his flash cards while walking to the board (4), writing the key word for beginning the next activity on the board (5), and returning to the normal position from where he addresses the students (6). As he walks back to this position, he uses a common verbal transition marker (7 & 8: see Goldsmith, 2008) to indicate that the activity has concluded. The teacher launches into his explanation of the next activity (9) as students stop speaking (between 00:38 and 00:41). We see that students have transitioned as they become quiet

and focus their attention (including physical cues, e.g. (10)) on the teacher. Thus, verbal and physical cues, including student and teacher actions, allow us to determine that the transition between the student paired activity and the teacher-fronted vocabulary explanation occurs between 00:37 and 00:41.

After segmenting the data with the process described above, each subdivision was examined in the context of the larger whole to determine *activities*. For example, we consider an uncoded sequence of segments from the first lesson examined, from October 3, 2006, in Figure 1.

Figure 2 Segmented, uncoded data

1	23:01.7 - 23:29.0	T-fronted discussion, foods from the bakery
2	23:29.1 - 23:53.2	Framing: importance of articles, explanation of activity
3	23:53.4 - 24:05.8	T reads list of words once
4	24:05.8 - 24:28.4	Call and response to present articles for words, T corrections
5	24:28.4 - 24:45.9	T reads second list of words
6	24:46.0 - 25:05.8	Call and response with second set of words, their articles
7	25:05.8 - 25:23.1	Framing: T says now do the activity with a partner
8	25:23.1 - 28:04.5	Ss paired activity
9	28:04.6 - 28:08.8	T tells Ss to review articles for tomorrow
10	28:09.9 - 28:21.9	Framing of activity: what is good with what
11	28:21.9 - 29:57.8	T-fronted modeling/soliciting of food pairs (10)

Key: T = teacher, S = student

Fig. 1. Segmented, uncoded data

Although the data is difficult to understand without the context of video and audio, one can nevertheless see a series of related sub-elements. Sub-activities (1), (2-9), and (10-11) clearly deal with different content: (1) discusses food words while (2-9) work with articles and (10-11) talk about what foods can be paired well together.

A detailed analysis of the sub-activities confirms this. For example, steps (3) through (6) present a twice-repeated series (3/4; 5/6) wherein the teacher reads a list of words while students listen (3, 5) and then reads them again while students say the articles that go with the words (4, 6). The set-up to this activity is presented in (2). The same activity is continued with a variation—doing it with a partner—in (8), while in (7) the teacher sets up the partnered activity. Finally, the teacher concludes this activity by briefly telling students to review the grammatical point focused on for the next day (9) before beginning to frame the next activity in (10) and modeling it in (11).

Sub-sub-activities were classified as moments within the context of a sub-activity where the content briefly shifted to a related element. These often included *confirmation checks* (that students understood a vocabulary word), *clarifications* or *explanations* (of a given lexeme), *pronunciation practices* (having students briefly repeat a word in a teacher-initiated sequence usually lasting less than 10 seconds), and jokes about words or concepts (that took place within the context of a larger sub-activity). Note that these sub-sub-activities are not continuous in the flow of the lesson (in contrast to sub-activities, which are) but rather take place for a few seconds during the middle of a sub-activity; afterwards, the classroom activity returns to the sub-activity.

In a third step, teacher and (to the extent possible) student gestures and movement taking place during the class period were also transcribed.

The data: Summary of the two lessons

Length considerations prohibit extended description of the two lessons studied.[i] (For a complete description, see Goldsmith, 2008.) Nevertheless, a more detailed description of the first lesson and a brief description of the second lesson are presented below. (Numerical references in parentheses refer to length of activities in minutes, seconds, and tenths of seconds and the activity/sub-activity coding assigned to each moment.)

The first lesson (October 3, 2006) centered around vocabulary for eating, drinking, and foods; grammatical gender; and reading the practice dialogue employing the vocabulary in the book. As a warm-up activity (5:25.2—5 minutes and 25.2 seconds; 1), students discussed what they had done over the weekend, including teacher scaffolding of useful words (1b), a teacher-fronted discussion of meanings of these words (1c), a paired activity where students asked what others had done over the weekend (1e), and a repetition by various dyads of the activity in front of the class (1f).

Students then did a word-chain activity to practice and activate vocabulary they knew (2:13.2; 2) including framing of the activity (00:54.5; 2a) and a paired game with words (1:18.7; 2b). A second vocabulary activity (5:27.7; 3) concerned words for eating and drinking and included teacher-fronted presentation of words (2:08.5; 3a), modeling of the partner activity (3b,3c) and a partner activity with these words (1:26.8; 3d). The teacher then framed a Taboo-like game with vocabulary words (1:03.8; 4a), after which

students played Taboo with a partner (3:03.6; 4b). Next, the teacher led an activity wherein students sorted words into categories (vegetables, fruits, foods in a bakery; 5:03.9; 5), followed by a practice activity about matching pronouns to food words (4:35.4; 6), which included two teacher-fronted cycles of reading a list of words (6b; 6d) and then, in call-and-response fashion, having students say their articles (6c, 6e), followed by a paired activity doing the same (2:41.4; 6g). In a final vocabulary activity (5:23.0; 7), the teacher framed (7a) and modeled (7b) an activity in which students, first with the whole class (7b) and then in pairs (1:14.4; 7d) had to say what foods went well together, followed by a whole-class discussion of this topic (00:50.6; 7e). (See Figure 2 for activities 5-7.)

In the end of the class, students activities were based around the dialogues in their textbook (8:06.9; 8); these were first teacher-fronted and modeled (3:02.1; 8a), followed by a call-and response reading of the dialogues (2:53.7; 8b) which included clarification checks and pronunciation practice, and then in pairs students read and then created a modified version of the dialogues in the book (1:46.5; 8d). Class concluded by going over tests students had just taken (7:10.7; 9) and stating the homework (00:13.6; T5).

The second class (November 29, 2006) included a warm-up activity of talking about the previous day's action in pairs (00:37.8; 1) and an activity about different meanings of the word *gehen* 'to go' followed by a partnered activity where students practiced these meanings (6:55.4; 2). In a second part of the class students talked about houses; a first activity was a description of a dream house and included teacher modeling, a description of a dream house to a partner, and a few students presenting their dream houses to the class (7:37.3; 3), while a second activity presented house vocabulary and then had students give a tour of their house from a floor plan provided, again, first modeled by the teacher and then with students presenting their own houses to their partners (16:35.3; 4). Later students used drawings of houses to practice accusative vs. dative case in describing location of objects/movement (5:51.9; 5) and then the teacher led an activity about matching verbs to the appropriate case (7:07.7; 6). The class ended with two minutes of procedural business—presenting homework, turning in corrected exams, collecting materials from the day's activities, and returning corrected homework (1:58.0; 7).

This in-depth description of a first lesson followed by a shorter summary of a second lessons allows us to see the multiple components constituting a given activity within a lesson and supports the definition of activity proposed in §3.

Organization of classroom time

The entirety of the two lessons was coded based on the type of instruction (*teacher fronted with solicited student interaction, teacher fronted without interaction,* and *partner-based*) each activity, sub-activity, or sub-sub-activity contained and the degree to which each was planned (with unplanned moments defined as student questions and the teacher's responses to them, unclear planning defined as the teacher-initiated and -fronted sub-sub-activities, and all other activities considered planned). Framing (the teacher's presentation of an upcoming activity) and various sub-sub-activity level processes (pronunciation practice, sub-sub-level references to a grammatical element, confirmation checks, and teacher-provided explanations and definitions) were also coded and totaled. The results of these analyses are presented in Table 4 below.

	October 3, 2006			**November 29, 2006**		
	Duration	Percentage of class period	Number of incidences	Duration	Percentage of class period	Number of incidences
Partnered activities	12:56.3	*25.6*	*7*	15:21.9	*32.1*	*5*
Teacher-fronted, no interaction	11:35.0	*22.9*		11:27.3	*23.9*	
Teacher-fronted interaction	26:03.4	*51.5*		21:06.5	*44.0*	
"Planned" sub-activities	37:40.9	*74.5*	*48*	38:26.7	*80.2*	*43*
Unplanned	5:40.5	*11.2*	*12*	5:42.8	*11.9*	*19*
Teacher-initiated sub-sub-activities	7:13.3	*14.3*	*38*	3:46.2	*7.9*	*24*
Framing	5:46.9	*11.4*	*14*	3:09.3	*6.6*	*11*
Pronunciation	1:12.7	*2.4*	*6*	0:45.4	*1.6*	*4*
Grammar				1:50.4	*3.8*	*10*
Confirmation	0:59.0	*1.9*	*12*	1:24.2	*2.9*	*9*

checks						
Explanation	3:57.7	*7.8*	*13*	1:06.2	*2.3*	*4*
Definition	0:09.3	*0.3*	*2*	0:34.5	*1.2*	*3*
Total length of class	50:34.7			47:55.7		

Table 4. The organization of classroom time

As Table 4 indicates, the classroom in question is an incredibly complicated place containing many individual moves, which can often be as short as just a few seconds. Nevertheless, several general conclusions can be drawn from the data.

First, the teacher aims to make the classroom a communicative place, with about a quarter to a third of classroom time spent in paired speaking activities. These happen on a frequent basis—as the concluding sub-activity in most activities—and in a high quantity—with the first lesson containing 7 such activities and the second lesson containing 5. As the semester progresses—and as students have spent more time practicing speaking—the teacher allows the length of individual speaking activities to increase. Nevertheless, however, the teacher still appears to maintain a quick and tight pacing for these paired moments, as can be seen in the second lesson, when students repeat the same activity (of commenting on a picture) three times with three different illustrations (5c; 5f; 5h). Though students only speak for between 60 and 80 seconds on each picture, the shifting of visual prompts and repetition of the activities allows for more extensive communicative practice, extending the activity while potentially keeping students more intrinsically interested (cf. Foster & Skehan, 1996).

Teacher talk is a highly prevalent feature in these lessons, with about 23% of the class period spent on teacher-fronted non-interactive talk and about half the class period spent in teacher-fronted interaction. Teacher-fronted interactive activities varied in the amount of teacher talk involved in them, with some including much more teacher talk than student talk (indeed, the student talk may have involved just a few confirmation checks or solicitations of ideas) and others representing teacher-guided, but primarily student-talking speaking activities (such as the whole-class repetition of an activity students had done in pairs). It is interesting to note that the percentage of teacher-fronted interaction decreased between the two lessons (from 51.5% to 44.0%) while the percentage of partnered activities increased (from 25.6% to 32.1%). This again seems to

reflect the ability for more complex speaking at later periods in the semester, which may owe to students' growing familiarity with the classroom routine or developing abilities to express gradually more complicated ideas in the target language.

The percentage of teacher-fronted activity in the two lessons remained relatively constant at 25%. This likely stems from unavoidable classroom management needs: the teacher needs to present homework, go over tests, distribute papers, present activities that students are to do, and lead transitions between activities. This also is due in some part to the necessity of framing activities students will do, yet the amount of time spent on framing can vary significantly, and it appears that the teacher tries to frame simply and directly to allow for more time on other kinds of activities (for discussion of framing and modeling techniques, see Goldsmith, 2008). Some grammatical and/or vocabulary instruction is also present in both lessons, notwithstanding the teacher's methodology being based on learning grammar outside of the classroom.

Despite numerous student questions, the teacher seems to keep the class "on plan"[ii]—that is, following the activities he suggests (although we cannot know whether students are "on-task" in partner-based activities due to the nature of our data)—for the majority of the class period. The teacher skillfully answers student questions quickly and with level-appropriate structures and vocabulary, and also uses a variety of strategies to postpone off-plan questions. For example, at several moments in these two lessons the teacher says he will explain a point to a specific student after class or tells students that a vocabulary or grammar point they are asking about comes up in the next chapter. This allows the teacher to keep nearly 90% of the class "on-plan," if we assume that teacher-led sub-sub-activities are part of the class plan. They seem to be, since the content brought up in these sub-sub-activities is often related to learning (repeating ties to a previously learned grammatical point, practicing pronunciation) or verifying understanding (e.g. confirmation checks, definitions, and explanations). Thus, having a plan and deploying various strategies to answer unplanned student questions allows for a large majority of the class period to stay "on-plan."

Finally, we note the average length of time of various sub-sub-activities. Confirmation checks (in which students usually translate the target word to English) and the teachers' providing definitions in German (or translating an individual word to the

L1) are the quickest of these tools (averaging 7 and 9 seconds apiece, respectively), while explanations of issues (also in German) last longer (on average, about 18 seconds). Ties to previously learned grammar elements and pronunciation practices each average 11-12 seconds. As such, we can see that these sub-sub-tools can provide a quick way to tie in to other content or help assist understanding. To do so quickly as the teacher does, however, requires a tight, direct approach to the issue (e.g. "what does X mean? Good" or "Let's all repeat Y [class repeats]"); such a tight pacing may be necessary to be able to include so many elements (over 100 steps or "incidences") within one class period.

Thus, in answer to our research questions, we have seen:

(1) an organization of timing practice wherein one quarter to one third of the class time is spent in paired speaking activities as the teacher consciously endeavors to minimize teacher talk;

(2) that a tight pacing of the classroom and deployment of various strategies to present material and answer (or postpone) student questions quickly may allow for more classroom time being spent "on-plan." While, of course, many studies show that students do not learn according to the teacher's plans but rather at their own pace (e.g. Allwright, 1984), others (e.g. Hyman, 1980) show that teachers fear student questions can lead the lesson significantly away from the teacher's planned goals. If the teacher intends to maintain the focus on his or her planned activities—as Hyman argues many teachers do—the strategies employed by the teacher in this case study provide some methods of doing so;

(3) that keeping the class on-plan theoretically translates into less side-tracking and allows for more time to be spent in communicative, paired oral activities. (In another type of methodology, tight pacing could allow for time on some other kind of activity.); and

(4) that over time the length of speaking activities increases but the number declines, potentially indicating familiarity with teacher routines or greater abilities to express more complicated ideas and speak at a higher level in the target language. (Most notably, this was reflected in teacher-fronted framing of partnered activities decreasing from 105.1% to 34.1% of the time spent in the partnered activities in the two lessons, respectively.)

Conclusions: Theoretical, methodological, and pedagogical implications

This paper's title asks: 'Why is pacing important?' 'How can we study pacing?' and 'What are the implications of pacing and time allocation on planning and implementing individual lessons?' Our case study has proven sufficient to begin to answer all of these questions.

Why is pacing important?

This case study has demonstrated that a teacher's attention to tight pacing allows for a distribution of classroom time that favors a diversity and wealth of activities—and especially communicative, oral, paired activities—within one class period.

How can we study pacing?

The data analysis presented in this article has demonstrated that a variety of tools can be used to evaluate data on pacing and classroom actions in general; these included transcriptions and analysis of teacher turns as well as analysis of time (using transcription software to segment the class into activities and sub-level components).

The results also demonstrate the resilience of video as a tool for observing the teacher in a classroom. The video and teacher's clip-on microphone provided excellent quality data of the teacher's actions in the classroom; these tools were remarkably unintrusive and also did not involve using classroom time for research purposes (as interviews and questionnaires often do).

What are the implications of pacing and time allocation on planning and implementing individual lessons?

This study has looked in exceptional depth at two lessons in the classroom, and of course, this is something that the average full-time teacher probably does not have time to do every day. However, this study is valuable to teachers in two respects. First, as already noted, the conclusions of the study distill some ideas of possible ways to pace that a teacher might choose to apply in the classroom. Secondly, and perhaps more importantly, this study offers some suggested frameworks for how a teacher can analyze his or her own pacing practice. Using the tools described in this paper, the teacher might choose to evaluate his or her pacing (perhaps informally doing so in a way that is much less time-consuming and exhaustive than that of the methodology adopted in this

research). As such, a teacher could observe pacing informally in his/her own practice and decide whether modifying that practice might provide helpful in allowing for alternative ways of distributing class time.

Furthermore, the teacher's practices (see §5, table 3) provided an example of a pacing "methodology" that could serve as a model to teachers looking for pacing suggestions. While this model may be highly dependent on the environment in which it is employed, and such a model may not work with students of different ages, linguistic backgrounds, and motivation, or in language classes with a different number of class hours, nevertheless some elements of the teacher's practice may generalize to other teaching environments and could serve as a model to other teachers.

In conclusion, in addition to developing a framework for examining pacing and the distribution of classroom time and applying these tools to a case study to see potential implications thereof, this work has provided definitions of the terminology of the field and suggested that pacing, sequencing, transitions, and framing can be examined at the micro-, meso-, and macro- levels. As such, this paper provides an important theoretical contribution for future work looking at pacing.

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[i] Space constraints also prevent inclusion of the pacing guides detailing the allocation of classroom time from moment to moment in the two lessons studied. However, these tables can be seen as Appendices A and B in Goldsmith (2008).

[ii] The point of studying "on-plan" and "off-plan" classroom time is not to imply that one is better than the other: indeed, many student questions are valuable to the learning process. Rather, however, this section attempts to describe a few of the teacher's strategies used to stay on plan (when a student's question might not be appropriate for the whole class or appropriate to the lesson at hand).