Teachers' Curriculum Planning and Accommodations of Innovation: Three Case Studies of Adult ESL Instruction

Alister Cumming

How do experienced ESL instructors plan and organize their teaching practices to make curriculum innovations? The present research sought answers to this question in three different educational contexts, attempting to document the curriculum concepts, pedagogical knowledge, and processes of instructional planning that eight teachers used to create novel courses for adult ESL learners. Findings describe (1) four modes of planning and twelve cycles of information-gathering in the ESL curriculum planning of one teacher, (2) verification of this framework among four additional teachers, as well as (3) an additional framework for documenting teachers’ orientations to curriculum content in second language writing instruction, accounting for three teachers’ processes of accommodating an instructional innovation into their usual teaching practices.

Research and theory on teacher knowledge has burgeoned over the past decade—to the point where extensive review articles are now available outlining fundamental aspects of teachers’ thinking, knowledge, and development identified through diverse empirical studies (Carter, 1990; Clark & Peterson, 1986; Grimmett & MacKinnon, 1992; Kagan, 1992; Shulman, 1987). Although a few critics have charged that such characterizations make teachers vulnerable to political manipulations (Nespor & Barber, 1991; Smyth, 1992), the overall result of this extensive research activity has been a more realistic, precise image of the complex expertise and practical knowledge involved in teaching generally.

Three recent trends in this research appear potentially useful to better understand language teaching. One trend has been to document individual teachers’ personal knowledge and actions holistically, using techniques like narrative inquiry, classroom observation and reflective interviewing or stimulated recall protocols, to understand how teachers’ personal knowledge about their areas of instruction relates to their classroom practices. This approach has produced illuminating accounts of teachers’ practical knowledge (Clandinin, 1986; Elbaz, 1983) as well as assessments of the relations between teachers’ beliefs and their classroom actions in specific curriculum domains, such as reading instruction (Richardson, Anders, Tidwell & Lloyd, 1991; Zancanella, 1991).

A second trend has been to describe experienced teachers’
processes of instructional planning. This perspective has shown pedagogical thinking to entail complex qualities of expertise and processes of decision making (Clark & Peterson, 1986; Leinhardt, 1988; Yinger, 1980). A third trend has been to study changes in teachers' attitudes and practices over time, particularly in the contexts of curriculum innovations. This research has revealed how teachers adapt their thinking and practices either to accommodate curriculum change or to resist it according to factors in their work environments or personal beliefs (Cumming, 1988; Hunsaker & Johnson, 1992; Langer & Applebee, 1987; Roemer, 1991).

Each of these trends has appeared in recent analyses of language teaching practices, but the scope of existing research on these issues in second language education remains very limited. For example, studies have recently begun to document key elements of language teachers' pedagogic knowledge (Breen, 1991, Cumming, 1989a; Libben & Rossman-Benjamin, 1992; Lynch, 1989; Nunan, 1988), to conduct case studies of the relations between language teachers' beliefs or perceptions and their processes for planning lessons or courses (Burns, 1991; Johnson, 1992; McLeod, 1991; Nunan, 1991; Tochon, 1990; Woods, 1989), as well as to account for language teachers' capacities to foster curriculum innovations or accommodate curriculum constraints (Kennedy, 1987; Naidu, Neeragia, Ramani, Shivakumar, & Viswanatha, 1992; Shaer, 1992; Wagner, 1988). The research reported in the present article contributes to each of these areas of inquiry, focusing on ESL teachers in Canadian universities.

Most other research on second language pedagogy has described patterns of behavior in learning tasks or classroom interaction in a general, abstract way, rather than seeking to illuminate the specific knowledge and processes of decision making or change among individual language teachers. As a consequence, little information is available to understand how language teachers' knowledge and thinking guides their pedagogic actions. The prevailing behavioral focus has been informative in identifying some of the integral processes and products of second language instruction (Chaudron, 1988). But its value appears limited—as many authors have pointed out—in accounting for the fundamental agency of language teachers' knowledge and decision-making in such common situations as curriculum change (Prabhu, 1987; Wagner, 1988), preservice teacher education (Johnson, 1992), or ongoing professional development (Burns, 1991; Naidu, Neeragia, Ramani, Shivakumar, & Viswanatha, 1992).

Indeed, limitations in current knowledge from the perspectives of
language teachers themselves create a widespread, perplexing dilemma. On the one hand, many current publications call on language teachers to change their classroom practices (e.g., Fanselow, 1989) or they advise teacher educators or program administrators how to foster progressive change in teachers (e.g., Pennington, 1989; Richards & Nunan, 1990; Wallace, 1991). On the other hand, very little systematic documentation exists to demonstrate how language instructors actually conceive of their teaching, which aspects of their pedagogical practices are amenable to change, or what may actually happen in their processes of change. Such information as now appears has mainly been gathered for purposes of program evaluation—seeking language teachers’ perceptions of a specific policy or policy change (e.g., Burnaby & Sun, 1989; Nunan, 1988)—or as frameworks for initial teacher education (e.g., Cumming, 1989a; Freeman, 1989; Johnson, 1992), rather than as analyses of language teachers’ knowledge in its own right or natural circumstances.

Moreover, the need to understand language teachers’ knowledge and actions has become crucial as teachers have recently come to assume more important roles in the organization of language education throughout the world. In the process of abandoning prescriptive "teaching methods" and a corresponding move toward "learner-centered curricula", many language teachers have come to assume primary responsibilities for curriculum planning and organization themselves, aiming to respond to each new class of students, and their particular goals and backgrounds, in unique terms (Cumming, 1987; Nunan, 1988; Stern, 1983). Given these circumstances, it is surprising that more information has not been collected, nor relevant theories proposed, to define how language instructors’ beliefs, values, thinking processes, and pedagogical knowledge shape their teaching practices.

**APPROACH**

The present article reports on three sequential case studies describing experienced ESL teachers’ conceptions of curriculum, processes for planning specific courses, and means of accommodating change in their teaching practices. Naturalistic case studies were chosen as the appropriate methodology for the research, given the absence of theories or previous large-scale studies of language teachers’ curriculum knowledge (Merriam, 1988) as well as the currently-acknowledged need to study teaching processes in an ecologically-valid manner in the contexts of ongoing teaching practices (Kagan, 1992). Each case study involved intensive,
structured interviewing with individual teachers over the duration of full courses, supplemented by regular observations of their classes. The focus of the research moved from an exploratory investigation to generate categories for further research (Study 1), to verification of these categories through analytic tasks (Study 2), to a controlled intervention that traced several teachers' processes of adapting their teaching practices to accommodate the intervention in terms of their usual pedagogical routines and beliefs (Study 3).

That is, the present research first started with a descriptive study of one teacher's curriculum planning, then developed an analytic methodology for better understanding these processes among four other teachers, then shifted to an intervention strategy that documented how several teachers conceptualized one aspect of ESL instruction and realized their curriculum practices to accommodate a new instructional technique. In each case study, an alternative perspective is offered on the common issue of how ESL teachers think about and act on curriculum innovation.

The case studies were conducted with teachers in different ESL programs at Canadian universities catering to young adults from non-English-speaking countries preparing for or engaged in academic studies. Eight teachers were studied in total, all were female, in their 30s or 40s, all volunteered for the research in response to a letter circulated through their program coordinators, and all were paid small stipends for their participation. As their profiles show in Table 1, the participating teachers had from 2 to 20 years of ESL teaching experience; all had English as a mother tongue, all spoke one or more other languages fluently, and all but one had a masters' degree in language education. Pseudonyms refer to the individuals in alphabetical order to indicate their sequence of participation in the three case studies.

<table>
<thead>
<tr>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Year of</td>
<td>Highest</td>
</tr>
<tr>
<td>Pseudonym</td>
<td>ESL Teaching</td>
<td>Degree</td>
</tr>
<tr>
<td>Ann</td>
<td>12</td>
<td>Masters</td>
</tr>
<tr>
<td>Barb</td>
<td>3</td>
<td>Masters</td>
</tr>
<tr>
<td>Claire</td>
<td>2</td>
<td>B.A. + Diploma</td>
</tr>
<tr>
<td>Debbie</td>
<td>10</td>
<td>Masters</td>
</tr>
<tr>
<td>Edith</td>
<td>4</td>
<td>Masters</td>
</tr>
<tr>
<td>Fran</td>
<td>17</td>
<td>Masters</td>
</tr>
<tr>
<td>Gail</td>
<td>10</td>
<td>Masters</td>
</tr>
<tr>
<td>Hilda</td>
<td>20</td>
<td>Masters</td>
</tr>
</tbody>
</table>

TABLE 1. Profiles of Eight Participating Teachers
STUDY 1. CONCEPTUALIZING A CURRICULUM

Study 1 aimed to develop a preliminary framework for describing how an experienced teacher conceived of and planned a novel ESL curriculum. A research approach was adopted similar to that taken by Yinger (1980) with an elementary school teacher as well as by Andresen, Barrett, Powell, and Wieneke (1985) with university faculty. Ann, the participating teacher, had been hired to prepare an eight-week ESL course for teaching assistants from the People’s Republic of China in the university's department of Chemistry, the first course of its type at this institution. Ann met with the researcher weekly for sessions of about two hours over 10 weeks (2 weeks prior to the course then for consecutive weeks as the course progressed), during which time she attempted to describe all that she had been thinking of and doing to prepare for her course that week. These interviews were supplemented by observation of three of Ann’s classes during which the researcher attempted to familiarize himself more fully with Ann's teaching, students, and curriculum concerns. The interviews were audio-taped, transcribed in full, then reviewed by the researcher and another experienced ESL teacher to develop categories using a constant-comparative methodology (Spradley, 1979) to describe the principal processes of curriculum planning that Ann had documented. After several revisions of the categories and later verification of them with Ann, the researcher and second coder reached reliability of 83% agreement on random samples of the data.

Planning Models

The content analyses showed Ann to have described two distinct levels of thinking and activity integral to her curriculum planning. At one level, Ann broadly used four discrete planning models, what cognitive scientists call "problem spaces" (Hayes-Roth & Hayes-Roth, 1979; Ericsson & Simon, 1984), in which she thought out specific, alternative aspects of her curriculum, interactively combining certain modes of thinking and problem solving:

1. timetabling,
2. determining curriculum components,
3. relating to social contexts, and
4. perceiving meaningful incidents.

In the timetabling problem space, Ann considered the scheduling of course activities and issues of managing them within specific periods and time constraints. This mode of thinking was
characteristically schematic in its concern for arranging sequential events within fixed durations, like a graphic sketch in which parts could be reorganized but ultimately had to fit together. For example,

Then we discussed the times. Three hours each time we decided to go for instead of five hours. On Wednesday we started 15 minutes later than we had planned because one student, her job or lab or whatever it is, is from 2:00 to 6:30. And of course the 13th is a holiday, so we’re going for one week longer because it’s a Monday.

In contrast, Ann’s problem space for determining content components appeared to be organized topically, much in the manner that Schank, Collins and Hunter (1986) describe as MOPS (memory organization packets) that store rich, complex memory associations within a single phrase. In this planning mode, Ann thought out curriculum elements by referring to topics (e.g., listening, pronunciation, grammar), activity types (e.g., readings, exercises, homework), or material resources (e.g., books, tapes, resource people). Ann’s mention of any one of these topics appeared to imply a powerful association of related pedagogical information and actions, alluded to by the key phrase but not elaborated on verbally:

I really think they need a lot of listening skills. Um, you know, stress and intonation patterns, they need to become aware of what they’re doing. Uh, some of this is grammar, but I still don’t think straight grammar. So I’m going to choose areas of listening and grammar and relate them to chemistry.

The third problem space Ann referred to was her relations to social contexts in and around the course. This planning model portrayed particular people and settings as a network or web of interrelated associations and demands for which Ann felt obliged to account. One set of these relations concerned administrative demands (e.g., from supervisors, colleagues, or sponsors), another considered the social profile of Ann’s students (e.g., cultural backgrounds, prior education, goals after ESL study), while yet another set of relations involved institutional contexts (e.g., classroom conditions, other courses). For example,

The other frustrating thing is dealing with administration. You know, I actually got kind of upset yesterday. Someone called
me up yesterday and said, we're going to a meeting back east
and we want to see the curriculum. You know, well, hang on a
minute, I'm working on the curriculum, but the final version
won't be ready until December. I don't know about that kind
of bureaucracy, where I think people are trying to sell this
course right now and want a final version, and I'm the one
that's getting the pressure.

The fourth problem space, *perceiving meaningful incidents*, was
more episodic in quality. Here Ann recounted brief narratives then
focused on key events to analyze them for important meanings to
guide her teaching (in the manner Connelly and Clandinin [1990]
suggest is fundamental to teaching practice). Some of these
episodes involved students' learning, relations with other colleagues,
or people's feelings. For example,

I realize that a big problem they have is that they really, even
ones that have been here one year, they do not understand the
responsibilities of TAs. One actually resented it. You could
feel the resentment. He came here to be a graduate student.
Why the hell, excuse me, was he expected to teach? He was
really having a lot of conflict between, you know, his role as a
student, and his role as a teaching assistant. Why should he be
doing this? He needs money. It's financial. And I think for
him it's a bit of resentment because he doesn't like the
financial set up here. He's a graduate student so he thinks
everything should be taken care of for him.

Information-gathering Cycles

The analyses also showed Ann, to act on her thinking in these
problem-spaces, to be reporting a second level of planning,
consisting of 12 frequent activities through which she collected
information or made decisions to realize her curriculum concretely,
akin to the repeated cycles or strategies for realizing plans identified
in research on cognitive planning in other domains (Hayes-Roth &
Hayes-Roth, 1979). The data collected from Ann typically showed
her reporting, in brief sequences, how she engaged in one of these
cycles to accomplish a specific task to plan her curriculum—in
relation to reflections in one or more of the problem spaces
described above. Similar descriptions have been documented in
other studies of ESL teachers' planning processes, though analyzed
in different ways (Nunan, 1991; Woods, 1989). The twelve cycles
Ann frequently reported were:
1. gathering resources (e.g., print, audio or video materials, human resources, institutional facilities),
2. analyzing materials to create pedagogic components (e.g., to form exercises, activities, tasks),
3. analyzing social situations (e.g., to assess students' needs in future situations, for functional language use, or work settings),
4. deciding values (e.g., emphases to place on aspects of course content, group vs. individual processes, setting priorities),
5. identifying students' dilemmas (e.g., understanding and resolving problems, goals, or conflicts in students' lives),
6. analyzing classroom behavior (e.g., students' language performance, relations with each other; achievement of tasks),
7. considering students' learning (e.g., changes, efforts, deficiencies, and long-term achievement),
8. considering uses of the curriculum for others (e.g., sharing with colleagues, envisioning future uses of instructional materials),
9. evaluating the effectiveness of the course (e.g., assessing classroom "atmosphere", students' responses to activities, continuity of learning activities),
10. considering alternatives (e.g., different presentation styles or task types, accommodating special needs, developing new perspectives),
11. assessing value for self (e.g., for professional development as a teacher, new understandings, relations to past experiences), and
12. collaborating with colleagues (e.g., relating to other teachers, support staff, administrators).

STUDY 2. DISTINGUISHING PRIORITIES IN CURRICULUM PLANNING

Study 2 set out to verify and assess, among several other ESL teachers, the categorization of curriculum planning processes identified in Study 1. Four teachers—called Barb, Claire, Debbie, and Edith here—participated in this study in the context of a month-long intensive ESL program they were teaching for Japanese university students visiting Canada during the summer. The four were the only staff teaching these students; Debbie's work doubled as instructor and coordinator of the short-term program. These teachers were responsible for planning the program's unique curriculum in full, working individually and in collaboration with each other. This curriculum context was innovative for these teachers in that, although each was experienced at teaching ESL, none had previously worked with large groups of Japanese students. No common textbooks or other prepared materials were used for
instruction, the curriculum content focusing more on field experiences, communicative interaction tasks, and relevant aspects of language use. Each teacher met individually with one of the researchers four times over the four consecutive weeks of classes, and their classes were each observed to inform interpretations of the interview data.

For Study 2, a structured approach to data collection was adopted using a Q-sort methodology (Wolf, 1988) based on the four planning models and twelve information-gathering cycles identified in Study 1. These categories were printed onto separate strips of paper, then at each meeting with each teacher, the researcher distributed these strips of papers in a random pile, asking the teacher to pick up the strips one-by-one, read the phrase printed on it, and say what she had been doing or thinking about that activity over the past week. Next the teacher was asked to sort the pieces of paper into two rank-ordered piles, first by importance in terms of her curriculum planning for that week, then second by the amount of time she had spent on that activity over the past week. The teachers were encouraged to talk as much as possible about their choices, the researcher documented their rank-orders on the spot, and the sessions were audio-recorded then later transcribed.

The four planning models quickly proved too difficult to talk about or rank-order in this way, each of the teachers saying in the initial meetings that she thought in each of these modes during all of her curriculum planning, and she couldn't logically distinguish or rank-order them. Thus verification was obtained impressionistically for the complex nature of these four planning models, as well as their integral functions in curriculum planning. But further analyses were not possible in this context. The twelve information-gathering cycles proved more amenable to this form of prompted recall, however. Each teacher was able to recollect clearly instances of her using each cycle while planning her courses in the previous week, as well as to rank-order these processes by perceived importance and by time spent on them. Excerpts from their comments on each planning cycle appear in Appendix A.

Analyses were conducted using Kendall's co-efficient of concordance, compiling the four teachers' rankings over the four weeks of data collection. The teachers' ranking of the importance of the information-gathering cycles in their curriculum planning, shown in Table 2, revealed the teachers had in fact ranked each information-gathering cycle differently ($w = .5, p < .00001$) and that seven of the cycles were judged considerably more important ($X > 7.5$) than five others ($X < 4.5$). Very similar results emerged for
analyses of the teachers' rankings of the time they had spent on each planning cycle ($w = .4, p < .0001$).

**TABLE 2. Mean Rank Orders for Importance of Twelve Planning Cycles by Four Teachers over Four Weeks**

<table>
<thead>
<tr>
<th>Planning Cycle</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborating with colleagues</td>
<td>9.8</td>
</tr>
<tr>
<td>Gathering resources</td>
<td>8.7</td>
</tr>
<tr>
<td>Analyzing classroom behavior</td>
<td>8.6</td>
</tr>
<tr>
<td>Deciding values</td>
<td>8.3</td>
</tr>
<tr>
<td>Considering alternatives</td>
<td>8.2</td>
</tr>
<tr>
<td>Analyzing materials</td>
<td>8.0</td>
</tr>
<tr>
<td>Analyzing social situations</td>
<td>7.6</td>
</tr>
<tr>
<td>Evaluating effectiveness of the course</td>
<td>4.4</td>
</tr>
<tr>
<td>Considering students' learning</td>
<td>4.3</td>
</tr>
<tr>
<td>Identifying students' dilemmas</td>
<td>4.2</td>
</tr>
<tr>
<td>Assessing value for self</td>
<td>3.3</td>
</tr>
<tr>
<td>Considering uses of curriculum for others</td>
<td>2.4</td>
</tr>
</tbody>
</table>

$w = .5, p < .00001, 11$ DF, chi-square = 89.1

**TABLE 3. Correlations between Rank Orders of Importance and of Time for Twelve Planning Cycles for Four Teachers over Four Weeks**

<table>
<thead>
<tr>
<th>Planning Cycle</th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluating effectiveness of the course</td>
<td>.9</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Assessing value for self</td>
<td>.9</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Analyzing materials</td>
<td>.7</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Analyzing social situations</td>
<td>.7</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Identifying students' dilemmas</td>
<td>.7</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Deciding values</td>
<td>.6</td>
<td>&lt;.003</td>
</tr>
<tr>
<td>Considering alternatives</td>
<td>.6</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Considering students' learning</td>
<td>.6</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Gathering resources</td>
<td>.5</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Considering uses of curriculum for others</td>
<td>.2</td>
<td>n.s.</td>
</tr>
<tr>
<td>Analyzing classroom behaviour</td>
<td>.1</td>
<td>n.s.</td>
</tr>
<tr>
<td>Collaborating with colleagues</td>
<td>-.2</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Table 3 shows the extent to which the teachers' rankings of importance correlated with their rankings of time spent, for each of the 12 planning cycles. These figures indicate very high correlations ($r = .9, p < .001$ to $.5, p < .01$) for nine of the information-gathering cycles, suggesting the teachers generally thought they had allocated the time in their curriculum planning appropriate to the importance of each cycle. Exceptions were the cycles of analyzing...
classroom behavior and considering uses of the curriculum for others, which the teachers felt they spent less time on than they should have, and collaborating with colleagues, which the teachers felt they spent more time on than they should have, relative to its importance (even though they considered it the most important of all the planning cycles). Additional analyses assessed whether the teachers’ rankings of the planning cycles showed differences (1) between each other, (2) over the four weeks of the course, and (3) between Debbie (in her coordinating function) and the three other teachers (who had no administrative duties). But no statistically significant differences were found for these three analyses. These results may indicate fundamental similarities in the teachers’ processes of curriculum planning—among each other and over time—or it may be that the number of participating teachers was too small, and the period of data collection too brief, for such trends to emerge distinctly in quantitative analyses.

STUDY 3.
ACCOMMODATING A CURRICULUM INNOVATION

Study 3 took a different, more proactive approach from the other two studies. Whereas Studies 1 and 2 documented teachers’ thinking about their curricula without interventions, Study 3 deliberately set out to implement a curriculum innovation, then to document several teachers’ accommodation of it as a means of more fully understanding their processes of curriculum planning as well as the extent to which ESL curricula may be amenable to change. Three instructors volunteered to have their ESL composition classes observed over one course, then to use a specific instructional innovation in a subsequent course, which was also observed. Their approaches to ESL writing instruction were documented, before and after their uses of this innovation, through weekly interviews and classroom observations. One aim of the research was to describe relations between these teachers’ (1) beliefs about ESL writing instruction, as documented in interviews, and their (2) teaching practices, as documented in logs of classroom observations (in the manner of Zancanella’s [1991] study of reading teachers). A second aim of the research was to identify which aspects of their classroom practices the teachers would or would not modify to accommodate the innovation.

By comparing three teachers intensively and longitudinally, it was hoped the research would reveal (1) unique aspects of the teachers’ individual beliefs about ESL writing curricula (which may not change in the face of the innovation) as well as (2) particular
aspects of ESL composition teaching which the instructors' experience would lead them to modify in their practices (i.e., those aspects most amenable to change, and hence adaptation of the innovation). Also, this case study sought to develop a framework capable of describing aspects of curriculum not accounted for in the two previous studies, particularly the content of curriculum planning and correspondences between teachers' stated beliefs about their instruction and their processes of actually teaching in classrooms. A particular domain of ESL instruction was selected, written composition, to achieve this purpose as well as to build on previous research (particularly, Cumming, 1992) and to prepare for experimental studies on ESL writing that could effectively account for instructional treatments in natural educational settings.

The instructors referred to as Fran and Gail were teaching writing courses in an intensive ESL program to mixed background students with intermediate to advanced English proficiency seeking university admission. The teacher referred to as Hilda was teaching ESL writing to mixed background students who had been admitted to the university's faculty of Engineering, but whose writing was considered, on the basis of essay exams, to be in need of improvement. Fran's courses were studied for 9 weeks before the thinking prompts were introduced, then for 6 weeks after the thinking prompts were introduced, producing 12 observation logs and 14 interviews. Gail was not available for the first portion of the research, so her classes were studied over 8 weeks, only after introduction of the thinking prompts, producing 7 observation logs and 5 interviews. Hilda's classes were studied for 10 weeks prior to introduction of the thinking prompts, then for 10 weeks after the thinking prompts were introduced, producing 15 observation logs and 20 interviews. These data were analyzed by two researchers, who categorized the activity types documented in the classes as well as each teachers' statements of belief about teaching ESL writing as documented in the interviews.

The instructional innovation was a set of five questions to guide students' thinking while composing, developed from previous research on the thinking processes of ESL students with high levels of writing expertise (Cumming, 1989), following Bereiter and Scardamalia's (1987) idea of procedural facilitation. The questions aimed to prompt students to think, while they composed, about: setting and monitoring relevant goals, searching for appropriate words, assessing the coherence among parts of their writing, using relevant grammar or spelling rules, and making comparisons between their first and second languages (see Cumming [in press]
for further descriptions). The teachers were oriented to the purpose of these thinking prompts prior to beginning the second set of courses documented, and a researcher demonstrated their use through a think-aloud demonstration in each teacher's class. The teachers were asked to make use of the thinking prompts in whatever ways they considered appropriate, it being said that the purpose of this stage of the research was to find out how experienced instructors would use the thinking prompts in their classes.

Data from the classroom observation logs were first segmented into units of activity following definitions by Burns and Anderson (1987) (e.g., activities were units like free writing, demonstration of thinking prompts, class discussion of goals, grammar exercises from textbook). Then the researchers categorized these activity units into four orientations representing conventional aspects of learning in second language writing: a focus either on content and ideas, language use, rhetorical organization, or composing processes (see Cumming, 1989b, 1992 for explicit definitions and examples in regards, respectively, ESL students' think-aloud reports while composing and ESL teachers verbal activities in composition classes). While these categories overlap to some extent, and are subject to the researchers' interpretations, high levels of inter-coder and intra-coder reliability were established in these analyses, ranging from 83% to 91%, suggesting that their content consistently reflected the main orientation of curriculum content documented in the observations. Table 4 shows the percentage of activity units categorized for the classes observed for each teacher, prior to and after the introduction of the thinking prompts. Figures 1 and 2 summarize the overall curriculum orientations of these teachers' classroom activities prior to and after the introduction of the curriculum innovation.

These data indicate that the three instructors taught in fundamentally similar ways before and after the introduction of the innovation, though slight changes were evident, indicating that the teachers shifted their existing repertoires to accommodate the terms and goals of the innovation. The innovation did not, of course, ask the teachers to act in ways that differed radically from their usual teaching practices, but rather the teachers seemed to take on slightly different ways of actualizing values or actions they already practised. In particular, the introduction of the instructional innovation appeared to move two teachers' classroom writing activities toward a greater focus on composing processes and, correspondingly, a lesser focus on language use. Prior to the introduction of the thinking
prompts, neither Fran’s nor Hilda’s classroom activities focused particularly on composing processes at all (according to the observational data collected). After the thinking prompts were introduced, a distinct increase in composing process activities appeared, however, while both teachers retained their existing orientations to rhetorical organization and content and ideas in their classes. Specifically, both teachers frequently used the thinking prompts as a basis to set up group editing and revising activities in their classes.

TABLE 4. Categorization of Curriculum Content in Three Teachers’ Classroom Activities—Prior to and after Introduction of Innovation of Thinking Prompts

<table>
<thead>
<tr>
<th></th>
<th>Content</th>
<th>Language</th>
<th>Composing</th>
<th>Rhetoric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fran</td>
<td>38%</td>
<td>29%</td>
<td>0</td>
<td>38%</td>
</tr>
<tr>
<td>29 activities over 6 classes observed before innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 activities over 6 classes observed after innovation</td>
<td>8%</td>
<td>8%</td>
<td>17%</td>
<td>67%</td>
</tr>
<tr>
<td>Galia</td>
<td>no observations before innovation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 activities over 7 classes observed after innovation</td>
<td>8%</td>
<td>8%</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>Hilda</td>
<td>33%</td>
<td>27%</td>
<td>0</td>
<td>40%</td>
</tr>
<tr>
<td>15 activities over 5 classes observed before innovation</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 activities over 10 classes observed after innovation</td>
<td>31%</td>
<td>14%</td>
<td>11%</td>
<td>43%</td>
</tr>
</tbody>
</table>

These trends are supported by analyses of weekly interviews with the teachers. Prior to the introduction of the thinking prompts, Fran’s and Hilda’s interviews showed their ideas about curriculum content in their ESL writing classes to correspond closely to the patterns of activities documented from observations (see Figure 3). For instance, Fran discussed her beliefs and classroom activities mainly in terms of content and ideas ("I always like the students to talk about the ideas of a topic. This is part of the process to help them think and write."), language use ("I correct their work mostly from a grammatical point of view to make sure the sentences are correct, to make sure one sentence connects with the other."), and rhetorical organization ("We discussed the format of thinking styles. In English compositions we give the facts of what, how and why. It’s analytical."). Similarly, Hilda spoke in comparable categories about her beliefs and focus on content and ideas ("Very often I respond to the topic in their writing, trying to improve the effectiveness of their communication."), language use ("When we went on to editing, it turned out that their greatest area of confusion was grammatical problems. The help they need is
grammar, the mechanics." and rhetorical organization ("Free writing is important to motivate students to write, then I ask them to organize their ideas in specific ways to see the purpose and structure of their writing.").

FIGURE 1. Two Teachers' Classroom Orientations to Curriculum Content in ESL Writing Courses before Curriculum Innovation

```
Language Use
   | Ideas & Content
   |   | Rhetorical Organization
   Hida   Fran

Composing Processes
```

FIGURE 2. Three Teachers' Classroom Orientations to Curriculum Content in ESL Writing Courses after Curriculum Innovation

```
Language Use
   | Ideas & Content
   |   | Rhetorical Organization
   Hida   Fran   Gail

Composing Processes
```

FIGURE 3. Two Teachers' Stated Beliefs about Curriculum Content in ESL Writing Courses before Curriculum Innovation

```
Language Use
   | Ideas & Content
   |   | Rhetorical Organization
   Hida   Fran

Composing Processes
```

Overall, the three teachers appeared to accommodate this curriculum innovation by fitting it into their existing pedagogical
beliefs and teaching practices. But introduction of the thinking prompts appeared to move two teachers' focus from practice of specific language skills toward a broader, more holistic emphasis on students' composing processes. This process of curriculum change did not involve radical shifts, but rather minor adaptations, each teacher essentially retaining her usual practices for teaching ESL composition while making minor changes in orientation and activities. This process of accommodation is clearly attested in their interviews, which show these three teachers perceiving meaningful incidents and determining content components in a manner similar to that documented for Ann in Study 1 above:

I see part of what I am doing is finding creative and interesting ways to review the prompts and to keep bringing them to the students' eyes and minds. A thesis statement can lead them along in the essay, but I have to keep reinforcing that the prompts have to feed into what they do while they're writing. (Fran)

I'm wondering about other ways to introduce the prompts. Maybe students should do the activity and then be introduced to the prompts. This might be an easier way to get them to work with the prompts. I hope by using them more, it might help them when they are working on their own writing. (Gail)

My concern was to relate the prompts to the other areas of the course. I connected the prompts to the free writing part of the exercise and also to the peer correction. (Hilda)

DISCUSSION

These three case studies provide considerable detail on the processes of several ESL teachers' thinking about their curricula, correspondences between their stated pedagogical beliefs and classroom activities, and their ways of accommodating change in their classroom practices. Since this research is limited to case study documentation, involving only a few teachers in specific contexts, its findings are only able to serve descriptive and heuristic functions—upon which further research and theories can build.

Study 1 developed a framework for describing the mental and social processes of planning ESL curricula for adult students. This framework identified four modes of cognitive problem solving and twelve cycles of information-gathering, processes akin to those documented in other studies of human planning, e.g. Hayes-Roth and Hayes-Roth (1979). The normative status of this framework remains to be established—to determine how widely it may be
adhered to by other language teachers, or to what extent its processes may vary and why. But verification of the central elements of this framework was obtained in Study 2, wherein experienced ESL teachers proved able to consider, assess, agree and even elaborate upon the chief features of these elements in the context of collaborative teaching to a common group of ESL learners. Further research will need to supplement the interview methodologies used here by more extensive observation of classroom practices.

As concluded in other studies of teacher planning (in various domains, see Clark & Peterson, 1986 and among language teachers, e.g., Tochon, 1990; Wagner, 1988; Woods, 1989), the mental processes of curriculum planning appear vastly more complex and different in quality than the simple, rational steps suggested by Tyler's (1950) now-conventional, prescribed sequence of (1) specifying objectives, (2) selecting learning activities, (3) organizing learning activities, and (4) specifying evaluation procedures. Indeed, the experienced ESL teachers studied in the present research displayed an interactive kind of problem solving in their course planning that involved—not a rational sequence of predetermined steps—but rather the ongoing juggling of competing, vital demands in different modes of thinking, information gathering, and classroom action.

Study 3 addressed other issues in ESL teachers' curriculum planning, particularly the content of curriculum in the instance of ESL composition instruction, documenting and assessing the ways in which experienced ESL teachers conceive of and act on this content to implement their courses, as well as the extent to which their knowledge and practices are amenable to change in the face of curriculum innovation. Instead of a descriptive approach as in Studies 1 and 2, an interventionist approach was adopted in Study 3 to determine how ESL teachers may change their thinking about curriculum topics and their classroom actions in the face of a specific innovation. The methodology developed for this study proved capable of documenting certain aspects of these elements and processes, providing one of the only systematic empirical accounts we are aware of demonstrating how (or that) language instructors may have intentionally altered their teaching practices (see Wall & Alderson, in press).

The image emerging from Study 3 is of several teachers retaining their integral pedagogic beliefs and classroom practices while willfully modifying minor aspects of their teaching to incorporate an innovation into their usual, personal approaches to ESL writing.
instruction. This gradual innovation, accommodated by individual teachers in unique ways, resembles the processes documented in other case studies of teacher change, for example, in the adoption of new mathematics curricula (Hunsaker & Johnson, 1992; Wood, Cobb & Yackel, 1991). If there was an impact to this particular innovation—teachers’ and students’ use of five thinking prompts to guide their ESL composing—it appears to have been in moving teachers away from presentation and practice of specific language skills and toward more holistic emphases on students’ composing processes in classroom activities. But further research is needed to verify this tendency. A broader implication for language education is that efforts at curriculum reform, if accommodated at all, may be interpreted and acted on variously by particular teachers, each of whom hold their unique beliefs and established classroom practices (Courtland, Luke & Leathern, 1989; Fullan, 1982; Roemer, 1991).

Studies now in progress are combining findings and methods from these three case studies, along with other schemes to describe classroom teaching and learning processes (e.g., from Cumming, 1989b, 1992), to form a conceptual and methodological framework that will account systematically for teachers’ participation in process-product experiments in the natural contexts of ESL writing courses. Most previous second language experiments have lacked the ecological validity of natural classroom settings, restricting themselves to analyses of learning tasks alone or training in laboratory-like conditions, making their applications or value for educational settings appear questionable (Ellis, 1990). Rather than treating the processes of second language instruction in such a "black box" fashion—where the causal influences of instruction on student learning remain obscure and educationally irrelevant—findings from the present case studies aim to account for the integral positions of teachers’ thinking and their classroom actions in prompting specific qualities of learning in ESL writing classrooms.

ACKNOWLEDGEMENTS
Funding for this research was provided through the Social Sciences and Humanities Research Council of Canada, through a local grant at the University of British Columbia then standard grant #410-91-0722 at the Ontario Institute for Studies in Education. I thank the eight participating teachers for their helpful, fundamental contributions to this study as well as Susanna Lo, Cheri McLeod, Abdolmehdi Riazi, Hiroko Saito, Ling Shi, and Christine Wu for
their considerable assistance in data collection and analyses. Studies 1 and 2 were described in a presentation at the Annual TESL Ontario Conference in Toronto in November, 1991.

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REFERENCES


Teaching, Hong Kong.


APPENDIX A

Examples of Four Teachers' Comments on Their Uses of Twelve Curriculum Planning Cycles—Excerpted from Study 2

- **Gathering Resources.** The second thing that I did was look for resources that would be relevant. Yeah, all of these things, even human resources. I was looking for people who could talk to the students, um, print, audio, video, everything.

- **Analyzing Materials.** Well, first of all, I just sort of generally look for what it is I need, whether it's visuals, generally I'm looking for visuals, especially with a low level course, something I can build conversations on or make listening tasks, little conversations they can listen to, and a cloze exercise to go with it. So what I'm doing is I'm trying to find stuff in print, visual or print form, that I can, uh, go from. Because then I like to usually use only part of it. So when I find the materials I'm looking for, then I take them and try to say, okay how much is this going to help me, how much do I have to create on my own?

- **Analyzing Social Situations.** It's more just functional language use and daily routines that I think maybe they'll use in the next few days. Especially when I think that we're going to be having this banquet. And one of the things that I find with the students is that we talk about these things. We may actually go to a movie and so that's something they can talk about. Like when they get there, they'll need to know how to use the bus first.

- **Deciding Values.** It's sort of a constant process with me, deciding what's going to be the most fruitful activity. Or what are going to be the most fruitful activities, then to judge, you know, what's most important to put across in the classroom.

- **Identifying Students' Dilemmas.** Identifying dilemmas in students' lives? I think it's important if I can get into that level of communication with somebody and to tailor what I do. For example, if somebody is having trouble with, you know, they have to pass their driver's test or else their money is cut off from their parents, then you know they're motivated and you can get in on that.

- **Analyzing Classroom Behavior.** For example, when they work in groups, who has worked well with who, who doesn't, and why, and how to pair them and how to group them, their level of language, and all of that.

- **Considering Students' Learning.** Just looking at their effort and problems. That's probably again their deficiencies more than anything else. And also their effort. That's interesting because they really work, they really try, and they put a lot of effort into things.

- **Considering Uses of the Curriculum for Others.** I create, you know, a fair bit of what I use. These Japanese groups are always, uh, going to present the same problems, like to keep them chattering really is a challenge, and uh, things that work are really valuable for other teachers. So, you put something good together, you know, you know that this is going to be useful beyond your own class. They may have to move it around, change a few things, but it might be useful.

- **Evaluating the Effectiveness of the Course.** I just sort of do that every day after class, ask myself, did this work? I'm thinking lesson by lesson, yeah, so already I'm starting to, you know, trying to decide if my plan is working and if what I've already done is just sort of smooth and is working.

- **Considering Alternatives.** That to me is sort of all wrapped up in deciding how to use the material. You know, is it the best? Should I go with these pictures I've already got, or should I scrap it, and try another route?
• Assessing Value for Self. I just think of it as a two-way street. You know, whenever I’m building something for a bunch of students I’m also building my own ability to do it better the next time. Or, uh, I always see that in everything I do, whether it’s a typing job or whatever, you know, uh, the process of working to fulfill the job contract is also the process of becoming a better teacher. It’s just constantly in my mind.

• Collaborating with Colleagues. We’re team-teaching, so mainly sharing with our colleagues. My partner and I have had to do that a lot. For example, I organized this whole field trip and prepared all the activities, but then she did the follow-up. So we had to talk, and I gave her all the stuff that I did, explained it all, and how it worked.