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Grammar Instruction in Content-Based Classes
at the Hawai'i English Language Program

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1. Introduction

According to Brown (1995), “curriculum development is a series of activities that contribute to the growth of consensus among the staff, faculty, administration, and students” (p. 19). A systematic approach to curriculum development includes elements such as needs analysis, goals and objectives, testing, materials, teaching, and evaluation (Brown, 1989). The present curriculum-development project primarily focuses on needs analysis and evaluation of teaching conducted at the Hawai‘i English Language Program (HELP). This paper reports the findings that would eventually contribute to the growth of consensus among the instructors, administrators, and students on grammar instruction in content-based (CB) classes at the program.

HELP is a language program affiliated to the Department of Second Language Studies (SLS) at the University of Hawai‘i at Mānoa. The program offers courses of English for academic purposes, as specified in its first program goal: “to provide a gateway to successful university study by preparing students with academic English language and college readiness skills” (HELP, 2009). Students at HELP are 17 years old or older and mostly from Asian countries, especially from Japan and Korea. Most students come and study for college preparation, but others study for professional and personal development. Since HELP does not require any English test score for entrance, students’ proficiency levels vary. As of February in 2009, the range of the students’ paper-based TOEFL scores is from 363 to 573 ($M = 462$, $SD = 53$) and the range of scores on the structure section is from 31 to 60 ($M = 45$, $SD = 6$). These diverse students are placed into four levels, from 100 to 400, based on their placement test scores. A huge proficiency difference is usually observed within a class.

Another feature of the program is that students with various language-learning backgrounds come and go every eight-week term. This makes it difficult to develop a systematic scope and sequence for grammar instruction. New students take a placement test on listening, reading, writing, and speaking, and they join classes where they are mixed with continuing students. Although the new students' knowledge of English grammar is somewhat reflected on their test scores, it is still unclear what each student has previously studied. Also, the continuing students' course levels after their first term are determined based on teachers' intuition and level recommendation; some classes have a final exam as objective assessment, but others do not. Unlike K-12 classes where scope and sequence are pre-determined, HELP classes like many other ESL institutions do not have a homogeneous learner group in terms of linguistic abilities.

In May 2005, HELP started to add CB classes to its traditional skill-based curriculum. Skill-based classes such as TOEFL and TOEIC preparation classes were kept to meet students' needs, but CB classes such as *Cultural Issues* and *Science* were developed "to give students the opportunity to study English while engaging in potentially interesting and useful subject matter" (Johnson, 2006, p. 5). In addition to increase students' interest, the curriculum provides "experiences that reflect the environment and expectations of undergraduate coursework in U.S. universities" (p. 5).

On the one hand, this curriculum change has an advantage of students' motivation and concurrent learning of English and content, but on the other hand, it creates some confusion on instructors who teach the CB classes. HELP instructors are mostly graduate students in SLS, and as they usually graduate in about two years, the instructor population changes frequently. Previous instructors who had developed those classes left teaching materials for future instructors, but there is no explanation on how to introduce grammar points in class; course

objectives are made to improve all the four language skills, not language per se. Since HELP intends to improve students' limited grammar knowledge so that they can succeed in a U.S. college, it needs to focus on not only content learning but also linguistic development (assistant director at HELP, personal communication). To make sure HELP's curriculum indeed enhances students' English learning, one needs to clarify what teachers should do in the CB classes. For this reason, this project conducted an instructor survey to elicit their ways of introducing grammar points in class and any confusion or problem they currently have in their CB classes. A student survey was also conducted to clarify their perceived needs regarding grammar instruction.

The rest of this paper is organized as follows. Section 2 summarizes beliefs and instruction models in the CB framework. Theoretical underpinnings and sample teaching materials are introduced. Section 3 explains issues regarding CB classes at HELP and the research questions. Section 4 reports the results from the instructor survey: how and when they teach grammar in class, how they assess students' grammar development, and what problems/questions they have. Section 5 reports the results from the student survey that asked their preferred curriculum type and in-class activities for grammar instruction and their perceived needs of teachers' feedback on their grammar. The last section addresses issues that need to be discussed for a better CB curriculum.

2. CB Curriculum and Language Instruction

Proponents of CB instruction believe that language is most effectively learned in context. This belief is against a traditional grammar class where students learn grammar rules in isolation. According to Snow and Brinton (1997), there are three major theoretical supports for CB

instruction. First, Krashen (1982) claims that extensive exposure to comprehensible input is the key in language acquisition. The comprehensible input basically means linguistic information that second language (L2) learners can currently understand. In order for learners' linguistics knowledge to develop, new information that is one level above their current ability of understanding ("i + 1") needs to be included in language instruction. L2 learners can move up to the next level by using some cues from context and their world knowledge, thus content learning in CB classes that utilizes their prior knowledge enhances L2 acquisition. This input hypothesis has been supported by studies in L2 immersion programs (Wesche, 1993).

Swain (1985) acknowledges the role of comprehensible input in L2 acquisition, but she claims that the input is not enough for successful learning. This came from the studies in L2 French immersion programs that reported the L2 learners' numerous errors in their production even after many years of exposure to (comprehensive) L2 input. Her output hypothesis emphasizes teachers' attention to learners' productive language skills. Immersion approaches are now putting emphasis on language production and so CB approaches that integrate speaking and writing instruction can create a good learning environment. CB approaches are also consistent with Vygotskian socio-cultural approaches in that content learning usually involve peer discussion and negotiation.

The third theoretical support comes from Cummins's (1984) notion of the Cognitive Academic Language Proficiency (CALP) and the Basic Interpersonal Communication Skills (BICS). CALP is the cognitive ability that is necessary to succeed in academic study, and BICS is the language skills necessary in basic communication. BICS can be acquired within a few years, whereas CALP typically requires five to seven years. Thus, it is impractical to postpone content learning until learners fully acquire BICS. CB classes can contain a range of

communication tasks that enhance content learning and communication skills at the same time, so again CB approaches can provide a good environment for L2 learning.

CB approaches have been receiving theoretical and empirical support, but what does a CB class with content and language learning look like? According to Brinton, Snow, and Wesche (2003), CB classes can be classified into three categories: theme-based, sheltered, and adjunct models. The theme-based model focuses on language learning, whereas the sheltered model focuses on content learning. In the adjunct model, students learn language in a language classroom as well as learn content in a mainstream classroom with native speakers of their target language. HELP can be regarded as a theme-based class, because its primary focus is not content but language and because HELP students do not learn in a mainstream classroom. Johnson (2006) says HELP intends to provide experiences that reflect coursework in U.S. universities, but instructors should keep in mind that HELP is a language program, which is different from a U.S. university where language instruction is not provided. Brinton et al. (2003) shows an example material for grammar instruction in a CB class. The worksheet says, "The following passage is taken from your psychology text. Using the schema above, and applying the rules we learned for article usage, decide which form of the article to use in the blanks below" (p. 117). It implies that students have already learned the contents and the usage of articles, and that the exercise is used to give them an opportunity to use their knowledge in the familiar context. "Content-based" instruction sounds like the focus is on content, but grammar exercises can be introduced along with the content.

3. Issues and Research Questions

As mentioned above, there is no course objective or guideline for grammar instruction in HELP's CB curriculum. This creates confusion for instructors such as what grammar points should be taught in a particular class and how those points they should introduce while teaching the content. The first research question is thus (1) how are instructors currently teaching grammar in their CB classes? To answer this question, an instructor survey was conducted.

The second and third questions are around students' perceived needs of grammar instruction. Some students said "I need a grammar class!" at class registration (director at HELP, personal communication). Also, one time two of my students approached me and said that they did not learn much grammar in their CB classes. Since I have never observed others' CB classes, it is unclear whether they indeed did not have grammar instruction or they did but did not realize that the activity was to improve grammar. It is often the case that students in CB classes do not recognize teachers' indirect vocabulary and grammar instruction (Valentine & Repath-Martos, 1997). If students want explicit (decontextualized) grammar explanation or exercises that they probably had in their home countries, then HELP's CB curriculum may not be optimal for them. The second research question asks (2) whether students want grammar instruction in a traditional skill-based grammar class.

In addition, it is unclear what in-class activities they prefer. Traditional grammar classes include instructors' explicit explanation of rules and de-contextualized drills on a textbook. Students rarely freely write or speak on a topic and receive feedback on their production. If they expect such a learning style, then HELP instructors may face a conflict. The third research question is (3) what in-class activities students prefer in grammar instruction. The last question is about feedback from instructors. The two students said they did not learn much grammar, but it

may be that the instructors were not sure if the students wanted feedback on their errors. It is true that some students lose motivation if they receive too much negative feedback, but some favor it for their development. The last research question is thus (4) how much feedback students expect from teachers. To clarify these students' points of view, a student survey was conducted.

4. Instructor Survey

An online survey was created with Survey Monkey (<http://www.surveymonkey.com>). HELP instructors were asked to go to the survey linked to my email message and answer the questions in 15 to 20 minutes. Five of them responded to the survey. The actual survey is available at http://www.surveymonkey.com/s.aspx?sm=4ZbO3hvrO2iqac2VkeIBAw_3d_3d, and the questions are shown in Appendix.

The first question asked general information about the decision of grammar points to be introduced and the way in which they are introduced. The instructors' responses showed that they monitor students' grammar errors in their speech/writing (Instructor 1, I1; I2; and I5), ask students to identify sentences that they do not understand or interesting to them in terms of structure (I3), and diagnose from students' essays (I4). Since no guideline is provided in their course binders, what to teach depends on instructors' intuition or observation of students' needs. I3 pointed out that kinds of grammar points can be very depending on the content.

In terms of when and how they introduce grammar points, they mostly do so when errors in students' speech/writing are found (I1, I2, I4, I5). The means of instruction is oral explanation (I4), example sentences that include a new grammar point (I4), and worksheets followed by class discussion (I2). I3 said, "it seems that the way in which teachers introduce grammar points is through worksheets taken from various grammar books." This may be problematic in that the

basic assumption in the CB approach is to contextualize language elements to increase the number of cues that help learners move up to the next level (Krashen, 1982). However, I3 continues, "This can appear to be a departure from the content, but it is also something students need." Here, a question arises whether instructors should respect students' learning style that they bring into the CB classes or they should stick to the fundamental principle in the approach.

Question 2 was about instructors' feedback on grammar errors on students' production. All the instructors said they give some amount of feedback even on free-writing, where writers are supposed to write freely without worrying about grammar. I2 who teaches the lowest-level writing class says s/he corrects only major errors, which is reasonable because it is impossible to fix all the errors at that level of students. Although some students say they do not learn much grammar, they seem to receive feedback on their grammar errors. Potential reasons for their claim are because they do not have follow-up detailed, explicit explanation on the error correction or because they do not have another opportunity to use the grammar point, so they easily forget what they studied.

The third question was about assessment of students' grammatical development. Three out of the five instructors said they do not assess the progress (I1, I2, I5). I4 said s/he has students keep a journal or portfolio and also compare essay drafts written at the beginning and the end of the term. I3 said s/he creates "hybrid" quizzes that include both content and grammar/vocabulary. From the responses, it is clear that some instructors do not have a reliable measurement of students' linguistic development. This may be a problem in that students have been moving up to the next level based on instructor's subjective intuitions on the students' ability. Once this happens, the following term will have classes with less homogeneous student groups. It is good

that at least two instructors have some form of assessment, but for other instructors, HELP should provide a guideline to refer to.

The last question intended to elicit any difficulty instructors have in terms of grammar instruction in their CB classes. I1 and I3 pointed out that course binders do not specify how to introduce grammar points: (I3) “there are no rules, recommendations or even suggestions in terms of how much grammar students should be taught.” Also, I3 said one time in a 300-level class s/he had 200-, 300-, and 400-level students. That student diversity made her wonder how s/he can meet the 200-level students' needs while not making the 400-level students bored. I4 said sometimes prescriptive grammar is different from descriptive grammar and so it is difficult to decide which should be taught.

To sum up, the instructor survey revealed that (1) current instructors decide grammar points to be taught based on students' comprehension difficulty and production errors, (2) they correct students' grammar errors when they find in their speech/writing using oral explanation, example sentences, and worksheets, some of which may be decontextualized, and (3) some instructors do not assess students' grammar development. As I3 said on Question 1, the range of grammar points that can be covered may be dependent on the content of the class. Exercise format, assessment tools, and text analyses for grammar-point selection will be necessary.

5. Student survey

A paper-and-pencil survey was conducted. Since this was done during classes, the survey had to be made easy and short; only three multiple-choice questions were included so that students could finish it in 10 to 15 minutes. The total number of students during the term was about 50, but due to some absences, the sample size became 37 ($n = 6$ in 100 level, $n = 15$ in 200,

$n = 13$ in 300, and $n = 3$ in 400). Before presenting the results, I would like to note that one instructor said at a HELP faculty meeting, where I reported a summary of the results, that it is unclear whether students especially at a low level clearly understood the questions. This doubt primarily came from one student's comment on grammar learning; s/he wrote "[I would like to] sing to improve speaking" as a comment for grammar instruction. Since this survey was anonymous and it is impossible to verify the student's understanding, the interpretation of the results below is presented on the assumption that all the students understood the questions clearly.

The first question was asked to see if students prefer a traditional skill-based grammar class or would like to learn grammar in a CB class. This is important in that if students' learning style and needs do not match with the CB curriculum, then there will be conflict between instructors and students. Below are Question 1 and the results (Table 1). The blanks in the table indicate no responses for the cells.

Q1. At HELP, in what kind of class do you want to learn grammar? You can circle more than one answer.

- a. I want to learn grammar rules in a grammar class
- b. I want to learn grammar in listening/reading/writing/speaking classes
- c. I want to learn grammar while I am studying some topics (culture, science, social issues, songs, cooking, etc.)
- d. I have no idea
- e. Other opinions

Table 1

Results from the student survey, Question 1

	100	200	300	400
a	1	5	6	2
b	3	9	11	2
c	3	6	3	2
d		3		
e				

At 100 level, more responses were obtained in (b) skill-based and (c) CB classes. The participant who chose option (a) also circled (b), which indicates that the student is open to another type of class. At 200 level, the most preferred type of class was (b) skill-based classes. One student chose only (a) and so the student may do not like adjusting to a CB class. Other students who chose (a) also chose (b) and/or (c). They will accept the CB curriculum. Students at 300 level also preferred (b) skill-based classes. One student chose only (a) and others who chose the option also chose (b) and/or (c). At 400 level, nobody chose only (a); CB classes will also work for them. One 300-level student wrote, "I want to learn grammar basically in a grammar class, but at the same time, I want to learn how to use it practically in listening, reading..." This student is aware that both *use* and *usage* of grammar points are necessary for language learning. The usage part is the focus in a grammar class, but a CB class can include both use and usage when instructors can organize materials and activities well.

The results showed that some students see the benefit of a traditional grammar class, but others prefer to learn grammar in non-grammar classes. That student's request "I need a grammar class!" may not mean s/he needs a traditional grammar class, but grammar instruction in skill-based and CB classes. Many students accepted non-grammar classes including a CB class,

so instructors should seek a better way of teaching grammar by taking advantage of language learning mixes with content learning, which motivates students to study.

The second question was about in-class activities that they would like to have.

Q2. Which activities do you like when learning grammar? You can circle more than one answer.

- a. Exercises in grammar textbooks
- b. Teachers' correction of my grammar errors in my writing
- c. Teachers' correction of my grammar errors in my speech
- d. Classmates' correction of my grammar errors
- e. Teachers' explanation of grammar rules
- f. I have no idea
- g. Other activities

Table 2

Results from the student survey, Question 2

	100	200	300	400
a	2	4	7	2
b	1	7	8	3
c	2	6	8	1
d		2	1	
e	1	7	12	1
f		2		
g	1			

Table 2 shows responses spread over the answer options; it is hard to see clusters due to the small sample size at 100 and 400 levels. From the other two levels, however, it is clear that students want both explanation/drills and feedback on their production. It seems that they know that simply working on exercises does not improve their grammar enough and thus need teachers' feedback on their grammar. This preference of feedback is not frequently seen in a grammar class, and this might have been related to the positive response to (b) skill-based and (c)

content-based classes in Question 1. One of the assessment tools can be peer feedback/discussion, but students do not prefer this option.

The third question was about the amount of instructors' feedback on students' grammar errors.

Q3. What do you think about teachers' correction of your grammar errors? Circle only one answer.

- a. I want my teacher to correct all of my grammar errors.
- b. I want my teacher to correct serious grammar errors only.
- c. I don't want to worry about grammar, so I don't need teachers' correction.
- d. I have no idea.
- e. Other opinions

Table 3

Results from the student survey, Question 3

	100	200	300	400
a	3	8	9	2
b	2	3	2	1
c		1		
d		2		
e				

It is almost impossible to correct all grammar errors of students at a low level, but the results clearly show that they expect teachers' feedback. This does not mean that instructors should take their opinions right away and start correcting all of their errors; instead, this can be interpreted as students' needs; they perceive they need language development, not only the four language skills and college readiness skills. As Master (2000) says, ESL students "have always demanded a focus on form in the classroom" (p. 101). From the TOEFL scores shown in Introduction (the range of scores on the structure section: 31-60), most HELP students need to improve their

grammar for their future study. If instructors are hesitating giving feedback now, then they may want to consider focusing more on accuracy.

In sum, HELP's CB curriculum is suitable to students' needs of grammar instruction. Only two students out of 37 prefer a traditional grammar class, and others accept grammar instruction while developing the four language skills. CB classes can offer teachers' explanations and exercises that are usually the features of a grammar class, as well as feedback on students' grammar errors in production that are rarely observed in a grammar class.

6. Things to Consider

The two surveys pointed out several things that need to be considered for a better CB curriculum at HELP.

Use of decontextualized grammar exercises

As I3 says, some classes seem to use "worksheets taken from various grammar books" that may be out of context, or even if they do appear in context, the context does not match with the content of the class. S/he says those potentially decontextualized grammar exercises are what students sometimes need. Also, I4 says s/he creates sample sentences to explain the grammar point. It is unclear if the sentences are taken from the textbook or newly created. If they are newly created irrelevant to the content, then are the exercises and example sentences useful? Is it true that what students believe they need is always useful to them?

Master (2000) says the range of grammar points and the amount of grammar explanation tend to be limited in CB classes. As a potential solution, he gives an example instruction on relative clauses using this sentence from Harrington (1993): "[H]e never forgot the day when

news of emancipation reached his family. ‘My mother, *who was standing by my side*, leaned over and kissed her children, while tears of joy ran down her cheeks’” (p. 184). He combines the structure and the function of relative clauses as follows:

Relative Pronoun (*structural*). Since the clause is restrictive, the only possible relative pronouns are the WH-forms *who*, *whom*, *which*, and *whose* + NOUN (i.e., *that* is excluded). Of these, *which* is not possible since the subject (mother) is human; *whom* is not possible because the clause is a subject-form, not a predicate- (or object-) form relative clause; and *whose* is not possible because no possession of the subject's is indicated and no noun follows the relative pronoun. Thus, *who* is the only choice possible in this clause; any other choice would have been grammatically incorrect.

Restrictive vs. Non-restrictive (*functional*). If the clause were changed to the parallel restrictive form, it would become *My mother who was standing by my side leaned over and kissed her children....* This form, however, is an unlikely one since it indicates that the speaker has one mother who is standing by his side and implies that there is another mother elsewhere (since a restrictive relative clause is only used when one noun must be differentiated from another). The nonrestrictive form is thus the only likely choice in this case, though it is not grammatically incorrect and might be appropriate if one had two (e.g., one metaphorical) mothers. (p. 103)

It is often the case that grammar instruction focuses on structural aspects, but learners should also know functional aspects to master their target language. The example deals with relative clauses that are usually introduced at relatively high level, but instructors at any level should consider a way of introducing both structural and functional aspects in a context.

“No recommendation ... of how much grammar students should be taught”

One of the challenges HELP faces is students' variability. Every eight-week term, student population changes and so it is difficult to establish a systematic guideline for the kinds of grammar points and the amount of time that should be spent for grammar instruction in each class. As far as I know, literature does not provide any ideal proportion of time spent on grammar instruction to the time on content teaching. The proportion must be dependent on the students' comprehension level. This decision making will be extremely hard especially when there is no specification of grammar points to be introduced. To solve this problem, each term instructors should discuss what will be taught across levels and across subjects in the same level.

The selection of grammar points based on students' errors

Because there is no specification of grammar points to be introduced in each class, some instructors seek potential grammar points from students' errors. One concern I had was that if instructors depend too much on errors in production, then at some point they may not be able to find because the kinds of grammar structures that ESL learners can use are limited. In my experience, students at 100 and 200 levels produce many errors in their writing, but some students at 300 level can express their thoughts with less complex but grammatical sentences. If instructors use the error-driven approach, then they will not be able to introduce new points unless students do not produce errors. In this case, the role of textbooks becomes important to introduce more complex grammar structures. Instructors will be required to carefully analyze materials and think what they can do with them.

Text/material analyses

As just mentioned above, instructors need to be aware what grammar points can be introduced in their classes. The material analyses may require much time and effort. However, if the same set of materials and textbooks are used many times, then each instructor can make suggestions and create a record of instructional ideas little by little over time.

CB assessment

The results of the instructor survey indicate that not all instructors assess students' linguistic development. This is problematic in that HELP needs (1) to make sure if students are learning and the course is effective, (2) to make sure if students are in a right course level and if they are ready to move up to the next level, and (probably) (3) to motivate them to study harder. It seems that when CB curriculum was developed in the past, the people involved in the project did not create assessment tools or guideline for making those tools. One guideline is found in Turner (1997). She specifies eight stages for developing measures of language achievement: (1) clarifying language instruction goals, (2) clarifying content instruction goals, (3) establishing achievement instrument formats, (4) writing achievement instrument specifications, (5) proposing performance standards, (6) writing the achievement instruments, (7) revising the achievement instruments, and (8) establishing instrument reliability and validity. These stages aim at creating a "hybrid" test as at Stage 3 both content and language components are put together. Although the primary focus of instruction in theme-based classes is language, not content (Weigle & Jensen, 1997), such a hybrid test will be useful so that the language component is not decontextualized.

7. Conclusion

This curriculum development project was conducted (a) to clarify how instructors teach grammar in CB classes at HELP after its curriculum change in May 2005; (b) to see students' preference in the type of classes, in-class activities, and the amount of instructors' feedback for their grammar learning; and (c) to point out discussion topics for future development of HELP's CB curriculum. Not only to motivate students to study, but also to enhance language learning, HELP needs to solve problems related to kinds of exercises, selection of grammar points in each class, and assessment tools.

References

- Brinton, D. M., Snow, M. A., & Wesche, M. (2003). *Content-based second language instruction*. MI: The University of Michigan Press.
- Brown, J. D. (1989). Language program evaluation: A synthesis of existing possibilities. In K. Johnson (Ed.), *The second language curriculum*. Cambridge: Cambridge University Press.
- Brown, J. D. (1995). *The elements of language curriculum: A systematic approach to program development*. Boston: Heinle & Heinle.
- Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy*. Clevedon, Avon: Multilingual Matters.
- Grabe, W., & Stoller, F. L. (1997). Content-based instruction: Research foundations. In M. A. Snow & D. M. Brinton (Eds.), *Content-based classroom: Perspectives on integrating language and content* (pp. 5-21). New York: Longman.

- Hawai'i English Language Program. (2009). *Mission Statement*. Retrieved May 10, 2009, from <http://hawaii.edu/eslhelp/about.html>
- Harrington, K. L. (1993). *America past and present: The challenge of new frontiers (Vol. II)*. Boston: Heinle & Heinle.
- Johnson, N. (2006). *Test evaluation and development: A case of language placement exam*. Unpublished manuscript, University of Hawai'i at Mānoa.
- Krashen, S. D. (1982). *Principles and practices in second language acquisition*. New York: Pergamon Press.
- Master, P. (2000). Grammar in content-based instruction. In L. F. Kasper (Ed.), *Content-based college ESL instruction* (pp. 93-106). NJ: Lawrence Erlbaum Associates.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, MA: Newbury House.
- Turner, J. (1997). Creating content-based language tests: Guidelines for teachers. In M. A. Snow & D. M. Brinton (Eds.), *Content-based classroom: Perspectives on integrating language and content* (pp. 187-200). New York: Addison Wesley Longman.
- Valentine, J. F., & Reppath-Martos, L. M. (1997). How relevant is relevance? In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 233-247). New York: Longman.
- Weigle, S. C., & Jensen, L. (1997). Issues in assessment for content-based instruction. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 201-212). New York: Longman.

Wesche, M. B. (1993). discipline-based approaches to language study: Research issues and outcomes. In M. Krueger & F. Ryan (Eds.), *Language and content: Discipline- and content-based approaches to language study* (pp. 57-82). Lexington, MA: D. C. Heath.

Appendix

Questions on the Instructor Survey

1. In your CB classes, do you explicitly teach grammar rules?
 If yes, - How do you decide what to teach?
 - When (e.g., when a target rule appears in a reading material) and how (e.g., use drills, explain orally) do you introduce the rules?
 If no, why not?
2. Do you give any feedback on students' grammar errors?
 If yes, when (e.g., when they make serious errors in their writing)?
 If no, why not?
3. Do you assess students' grammar development at/by the end of the classes?
 If yes, how?
 If no, why not?
4. Do you have any difficulty with or questions about grammar teaching in your CB classes?
 If yes, please explain them.