The Integration of Language and Content: Form-Focused Instruction in a Content-Based Language Program

Antonella Valeo
York University

Abstract

This comparative, classroom-based study investigated the effect and effectiveness of introducing a focus on form approach to a content-based, occupation-specific language program for adults. Thirty-six adults in two classes participated in a 10-week study. One group of 16 adults received content-based instruction that included a focus on form component while the other group of 20 adults received the same content-based instruction with a focus on meaning only. Pre-tests/post-tests/delayed post-tests measured learning of two grammatical forms, the present conditional and the simple past tense, as well as occupational content knowledge. Results indicated significant gains on most of the language measures for both learner groups but significant advantages for the form-focused group on the content knowledge tests. The results are discussed in relation to the impact of specific strategies designed to focus on form and the relationship between attention to form and comprehension of content in the context of content-based language programs.

Résumé

Cette étude comparative menée en salle de classe a examiné l'effet et l'efficacité d'un enseignement mettant l'accent sur la forme dans un programme de langues professionnelles pour adultes. Trente-six apprenants de deux classes intactes ont participé à cette recherche pendant 10 semaines. Un groupe de 16 personnes a reçu les instructions qui se concentraient sur la forme, tandis que l'autre groupe de 20 personnes a reçu les mêmes instructions qui portaient sur le sens seulement. Des pré-tests, des post-tests ainsi que des post-tests retardés ont mesuré l'apprentissage de la langue et du contenu de deux traits grammaticaux; premièrement, la connaissance du conditionnel et du passé et, deuxièmement, la connaissance du contenu professionnel. Les résultats ont indiqué une amélioration sensible de la plupart des compétences linguistiques pour les deux groupes d'étudiants. Or, le groupe ayant mis l'accent sur la forme a connu des progrès significatifs aux tests de connaissance du contenu. Les résultats examinés se basent sur l'impact des stratégies spécifiques visant à faire ressortir la forme ainsi que la relation entre l'attention portée à la forme et la compréhension du contenu dans ce contexte particulier.

The Integration of Language and Content: Form-Focused Instruction in a Content-Based Language Program

Introduction

A primary concern of research and practice in the field of second language acquisition (SLA) has been the question of how best to facilitate form-meaning connections in instructed SLA. In this study, this question is explored within two pedagogical frameworks concerned with both language form and content meaning: content-based language teaching and form-focused instruction. In content-based language teaching (CBLT) second languages are taught via subject matter other than language itself. Form-focused instruction (FFI) is a term used to describe instruction that draws attention to language form in meaning-oriented or content-based language teaching contexts (Spada, 1997, 2011). The study is specifically concerned with the development of grammatical accuracy in content-based language teaching and learning.

 CBLT is an umbrella term used to describe a wide range of teaching models in which second languages are taught via subject matter other than language itself, for example, mathematics, social studies, psychology and other subject areas. One of the earliest models is that of French immersion in Canada and more recently Content and Language Integrated Learning (CLIL) in Europe. These models and others are premised on the belief that language and content are inseparable in communication and that the learning of both is enhanced by integrating the two. As an instructional framework, CBLT has been widely accepted as effective pedagogy and it draws support from both classroom practice and research (Brinton, Snow, & Wesche, 2003; Crandall & Kaufman, 2005; Krueger & Ryan, 1993; Snow & Brinton, 1997; Stoller, 2004; Stryker & Leaver, 1997; Wesche & Skehan, 2002). Numerous evaluations of CBLT in foreign language programs have reported increased learner satisfaction, improvements in language proficiency, and enhanced content knowledge (Kasper, 1995; Krueger & Ryan, 1993; Leaver, 1997; Rodgers, 2006; Stryker & Leaver, 1997). Comparative studies of CLIL learners and those studying languages as core subjects have shown language learning benefits in favour of CLIL learners (Admiraal, Westhoff & de Bot, 2006; Lasagabaster, 2008; Ruiz de Zarobe, 2008). Empirical research in a variety of CBLT programs has revealed benefits for learners in both language proficiency and academic achievement (Burger, Wesche, & Migneron, 1997; Smit, 2008; Turnbull, Lapkin, & Hart, 2001; Van de Craen, Mondt, Allain, & Gao, 2007).

However, other research has revealed that learners' comprehension of the target language was better developed than their abilities to produce the language, particularly with regard to grammatical accuracy (Harley, 1992; Harley, Cummins, Swain, & Allen, 1990; Swain, 1985). It appeared that although the infusion of meaningful content supported the development of receptive skills, it was not sufficient to equally affect learners' productive skills. Further to these studies, observations in French immersion classrooms have revealed that those teachers taught grammar in a manner disconnected from the teaching of content (see Swain, 1996). One approach to promoting the development of grammatical accuracy in these contexts is to introduce a focus on form.

FFI draws on the premise that attention to language form is necessary for language acquisition (Schmidt, 1990). Research investigating the overall effectiveness of FFI has generally been positive, and has provided evidence suggesting that instruction that draws

attention to both form and meaning in instructed SLA is more effective than instruction that focuses exclusively on meaning (Doughty & Williams, 1998; Ellis, R., 2001; Lyster, 2007; Norris & Ortega, 2000; Spada, 1997, 2011; Swain, 2000). Research has shown that FFI has been implemented in a range of teaching practices that vary in the degree to which they detract from communication but share a concern with attention to form (Doughty & Williams, 1998; Ellis, R., 2002; Spada, 1997, 2011; Williams, 2005). These include modified input, tasks designed to draw attention to form, and the provision of corrective feedback. Each of these pedagogical options align well with teaching practices and learning in content-based language classrooms in which the content provides rich, subject-specific input, and tasks situate language as meaningful discourse, and where corrective feedback focuses on both language and content.

      Researchers have investigated the effectiveness of modified input in a number of ways, including increasing the frequency of a particular form in written texts (Trahey & White, 1993; Williams & Evans, 1998), typographically enhancing a form (White, 1998), or providing verbal metalinguistic explanations (Leeman, Arteagoitia, Fridman, & Doughty, 1995; White, Spada, Lightbown, & Ranta, 1991). In addition, tasks have been designed to require the use of particular forms, thereby highlighting uncommon or less salient linguistic forms (Doughty & Varela, 1998; Loschky & Bley-Vroman, 1993; Samuda, 2001). Tasks have also been designed to encourage discussion about form (Alegria de la Colina & Garcia Mayo, 2007; Garcia Mayo, 2002; Swain & Lapkin, 2001). With regard to corrective feedback, much evidence suggests the provision of corrective feedback is an effective means of making learners aware of linguistic form (Long, 2007; Miller, 2003; Nicholas, Lightbown & Spada, 2001; Norris & Ortega, 2000; Russell & Spada, 2006).

      An important finding in CBLT research in the corrective feedback literature is that while recasts are the preferred choice of feedback provided by teachers in those classes (Lyster, 1998; Lyster & Ranta, 1997; Zyzik & Polio, 2008), learners in these classrooms are less likely to notice them as corrective feedback (Lyster, 1998; Lyster & Ranta, 1997; Nicholas et al., 2001). In contrast, research on the effect of corrective feedback in foreign language classrooms in which a focus on form is central has revealed that recasts *are* noticed by learners and recognized as feedback on their form and accuracy (Lyster & Mori, 2006; Sheen, 2004).

      These studies and others in the FFI literature have been carried out in various settings, including content-based contexts. Most of the research in content-based classrooms has been carried out in school-based immersion programs with children (Lyster, 2004b, 2007; Swain, 2000) with far less research situated in content-based settings with adult learners. The age of learners has been a consideration in the design of materials and instruction in immersion studies as in, for example, the use of age-appropriate materials to engage young learners while drawing attention to form (Day & Shapson, 1991; Harley, 1989; Lyster, 2004b) and in interpreting findings (Day & Shapson, 1991).

      In addition, studies concerned with the effect of FFI on content learning are limited. Doughty and Varela (1998) conducted a study with children in an English as a second language (ESL) science class and considered the effect of FFI on the learners' attention to content. FFI included tasks that required the learners to use the simple past tense and the past conditional forms, and the provision of corrective feedback in the form of recasts with a rising intonation. The findings showed greater language gains for the group that received

the FFI treatment over a comparable group that did not and the children reported having no difficulty attending to the content during the FFI lessons.

Grim (2008) investigated the effect of FFI on both content and language learning outcomes in a study with 152 university students studying in the second and third semesters of a *content-enriched* French language program. The study compared the effect of three treatments that varied in terms of how these students' attention was drawn to form while they were engaged in instruction focused on geography and cultural content. For one group of students, the focus on form was planned; the teacher used material in which specific lexical and grammatical forms were written in bold and in color, and she provided grammar explanations throughout the lessons. Another group of students used the same material but the teacher explained grammar incidentally when she responded to students' questions about grammar on an ad-hoc basis. A third group of students received entirely meaning-focused instruction with no enhancements made to the material and no grammar explanations provided. Pre-/post-/ and delayed post-tests measured lexical and grammatical development, and content knowledge. The results showed that the second semester students who received the planned focus on form lessons performed better, in the short term, on both content and language and the third-semester students who received planned focus on form showed greater gains in lexical learning outcomes. Grim concluded from these findings that learners benefitted from the inclusion of FFI in a content-enriched program in the short term, and that FFI did not negatively affect content learning.

A number of other studies concerned with learner attention have offered evidence of the effect of a focus on form on attention to content. These studies investigated the effect on ability to focus on content when text enhancement was used to draw the learners' attention to form. Leow (1997) investigated the effect of text enhancement on content comprehension in a study with adult learners of Spanish and found that text enhancement appeared to have had no effect on comprehension of content or language outcomes. Leow, Egi, Nuevo, and Tsai (2003) examined the effect of text enhancement on two different grammatical forms, the present perfect and the present subjunctive. These authors measured learners' ability to notice the form, their comprehension of the content, and their intake, and the results showed that text enhancement had no effect on content comprehension but different effects on the two forms; learners showed evidence of having noticed the present perfect but not the past subjunctive. The authors suggested that the difference may have been due to the greater salience of the present perfect form. In contrast, Lee (2007) investigated the effect of text enhancement in a program with a group of young adults studying English in Korea and found that text enhancement had a negative effect on content comprehension but a positive effect on language learning. Wong (2003) investigated the effect that text enhancement had on the acquisition of the past participle agreement used in relative clauses and on comprehension. She found that text enhancement had no effect on the acquisition of the grammatical form but a positive effect on comprehension. Learners recalled the content of the text better when the relative clause containing the target form had been enhanced.

Research Questions

An overview of the relevant SLA literature supports the premise that language teaching that draws on content for meaningful input is beneficial to learners. There is also support for teaching that draws learners' attention to language form within that context.

Yet, research in adult CBLT programs has revealed that a focus on language form has not been widely integrated (Musumeci, 1996; Pica, 2002). In addition, there is concern that explicit attention to language will detract from attention to content in such programs (Klee & Tedick, 1997; Toth, 2004; Zyzik & Polio, 2008). This is further supported by the claim that second language learners, particularly low proficiency learners, may find it difficult to attend to language structure and content at the same time (VanPatten, 1990).

The literature has shown that the teaching and learning context can influence the results of research investigating the effectiveness of FFI. For example, recasts have been found to be effective in research carried out in laboratory contexts where the feedback is more salient than in content-based classrooms, where learners may not notice recasts as corrective feedback (Lyster & Ranta, 1997; Nicholas et al., 2001). Another example is the use of tasks that require learners to talk explicitly about a form. Some researchers argue that such tasks are appropriate in foreign language programs in which learners are already inclined to focus on form (Fotos & Ellis, 1991). A great deal of FFI research has been carried out in communicative foreign and second language classrooms with little or no emphasis on content.

The present study was carried out in a content-based language program concerned with language development and professional content. It investigated two research questions:

1. What effect does FFI have on language learning in a content-based language program for adults?
2. What effect does FFI have on content learning in a content-based language program for adults?

Methodology

Research Design

This quasi-experimental, comparative study was carried out with two groups of adult learners taught by one teacher. In the study, both groups received instruction focused on the content of the program while one of the groups also received FFI for 10 weeks. The FFI included form-focused tasks, explicit corrective feedback and grammatical explanations to draw learners' attention to two target forms, the simple past tense and the present conditional. A pre-test/post-test/delayed post-test design was employed to investigate the effects of FFI on language and content learning outcomes. The language tests consisted of two oral production tasks (OPTs), a cloze task and an error correction task (ECT). Content knowledge was measured in a pre-test that included all the content of the course. Content learning during the study was measured with three content tests, each delivered after a unit of content was completed during the 10 weeks of instruction. Figure 1 illustrates the design of the study. The group that received instruction focused only on the content meaning is the MF group and the group that received content instruction and FFI is the FF group.
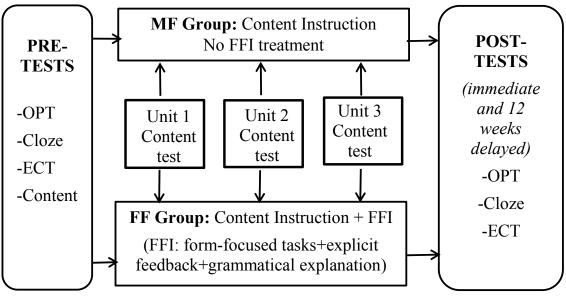
Figure 1. Study design.

Context and Participants

The study took place in a program designed to teach ESL to adult newcomers to Canada preparing to work or train as professional childcare providers. The learners attended classes on a part-time basis for 5 hours per week, either once a week or twice a week. The learners' English language proficiency was assessed prior to enrollment using the Canadian Language Benchmarks Placement Test (CLBPT), a competency-based assessment tool[1] for the purposes of placing them at the appropriate level. Additionally, learners were interviewed regarding their professional backgrounds and goals to ensure that these were compatible with the content goals of the program. The syllabus was content-driven and organized as units of occupation-specific content knowledge.

A total of 36 adults (35 women, 1 man) participated in the study. Most, 64%, of the participants had post-secondary education; over half, 55%, had experience working as professional childcare providers; and the majority, 67%, had not completed any accredited professional training or education. Eighteen different languages were represented in the group; the most commonly spoken languages were Mandarin, Cantonese, Bangla and Tamil. All participants had been assessed at low- to mid-intermediate language proficiency and were enrolled in one of two classes based on the learners' choices; 16 adults were enrolled in the Saturday class and 20 in the evening class that met twice a week.

The teacher held certification as a qualified ESL teacher and was accredited as an early childhood educator. She had several years of experience working in both fields. She

---

[1]The Canadian Language Benchmarks Placement Test (CLBPT) is an assessment tool aligned to the Canadian Language Benchmarks (CLB), a descriptive scale of communicative proficiency in English as a Second Language expressed as 12 benchmarks. Development and implementation of the CLB is funded by the Government of Canada and managed by the Centre for Canadian Language Benchmarks (see Pawlikowska-Smith, 2000 for more detailed information).

developed the original course curriculum, taught both classes, and played a consulting role in the development of the instructional material for the study.

Treatment

The study included 10 weeks (50 hours) of treatment instruction and 13 weeks of non-treatment instruction. Post-tests were delivered immediately after the treatment instruction ended and delayed post-tests were delivered after the non-treatment instruction ended. During the 10-week period of the instructional treatment, both groups followed the same content-driven syllabus focusing on childcare knowledge. The Saturday class was randomly assigned to receive the instruction that included a form-focused (FF) component, and the evening class was assigned to receive the meaning-focused (MF) instruction only.

In this study, the FF methodology included: (a) metalinguistic explanation, (b) form-focused tasks, and (c) explicit and implicit corrective feedback. The researcher provided the teacher with scripted lessons indicating when and how to draw the FF learners' attention to the target forms during the 10-week treatment. All tasks were meaning-based and focused on the course content, but in the instruction to the FF group the tasks also included instructions to the learners reminding them to pay attention to grammatical accuracy and the teacher modeled a correct form verbally or in writing when assigning the task. With regard to corrective feedback, the teacher was asked to provide both implicit (recasts) and explicit feedback throughout the lessons. For example, during one lesson, the teacher provided explicit feedback by responding to a learner error by saying "Use *bites*. The verb must be in the present tense in that part of the sentence." An example of implicit feedback, as a recast, given by the teacher is as follows: In response to the learner's statement about a child, "She was attaching to me," the teacher replied, "Oh, she was attached to you." At the start of the study, the teacher participated in a training session with the researcher to ensure that she understood the difference between explicit and implicit corrective feedback and the FFI options required in the study.

The MF instruction did not include metalinguistic explanations or references to grammar. All tasks were focused entirely on content, and corrective feedback on form was limited to recasts. The rationale for including recasts in the MF instruction drew both on previous research in similar classrooms and considerations of this specific program. Previous research suggests that learners in CBLT classrooms may perceive recasts as feedback on meaning (Lyster, 1998; Lyster & Ranta, 1997) and including recasts was a practice that the teacher had reported as intrinsic to her own teaching style and the expectations of the program.

Target Grammatical Forms

Two grammatical forms were selected as the target features for this study: the *simple past tense* and the *present conditional*. An examination of the syllabus revealed that these forms were used frequently and naturally in the course, thereby maximizing the opportunities for a focus on form to be embedded in the content of the course. In addition, the grammatical forms were appropriate to the proficiency level of these learners in that they were familiar to some of the learners but they had not yet been mastered. Using two grammatical forms in the study also provided an opportunity to examine if FFI had different effects on the two forms. Previous studies have compared the effect of FFI on the

acquisition of the past tense (Doughty & Varela, 1998; Ellis, R., 2007; Han, 2002; Mackey, 2006). However, few have compared the effect of FFI on more than one form in the same study. In one such study, Mackey (2006) found a different effect on measures for questions and past tense and suggested that the lower saliency of the past tense form played a role in the differences observed. A review of the literature found no studies investigating the effect of FFI on the acquisition of the present conditional.

The target content drew from three areas of professional knowledge in which the target linguistic forms occurred most frequently: (a) behaviour management, (b) child abuse, and (c) safety. These areas of knowledge are critical for childcare providers in the workplace. They must be able to communicate effectively when they describe incidents and procedures. For example, the simple past tense is used when reporting accidents as in the example: *The boy fell in the playground and scraped his knee.* In the unit on behaviour management, the content intersects with the present conditional form as follows: *If children fight over a toy, the teacher should remove the toy until they behave.*

Data Collection Instruments

The study used four different sources for data collection: (a) a participant survey; (b) pre-tests, post-tests, delayed post-tests for language measures; (c) content tests; and (d) audio recordings of the instruction. Both the FF and MF groups participated in all the data collection. Following is a detailed description of each data collection tool and procedure.

Participant survey.

Demographic information was collected in order to investigate if learner variables have an impact on the results of the language and content tests. The survey included questions about language background, education, time spent in Canada, and professional education and experience.

Language measures.

The language measures consisted of two written tasks (Appendix A) and two OPTs. The same versions were used for the pre-test, post-test and delayed post-test to allow a direct comparison.

One of the two written tasks was an ECT consisting of 40 sentences with an error in one of the target forms. Sixteen of the sentences had an error in the simple past tense, 15 had errors in the present conditional form, and the remaining nine items contained an error in another form to act as a distractor. The ECT presented a highly controlled measure intended to capture a more explicit knowledge of the language than the other tests.

The other written task was a cloze task consisting of a 310-word passage describing the workday of a childcare provider in a childcare centre. In this passage, 13 words using one of the two target forms were deleted and the base form was given in parentheses. Five of the words required the use of the present conditional and eight required the use of the simple past tense. The cloze task was designed to require the learners to consider the discourse in which the forms were used in order to complete it.

The OPTs were picture elicitation tasks designed to elicit use of the target forms in a context familiar to childcare providers. The task measuring outcomes on the simple past

tense consisted of nine pictures showing a child who had had a minor accident. Learners were asked to look at a picture and identify what had happened to the child, for example in one of the pictures she was holding a broken pencil. The present conditional task consisted of a picture of a kitchen in which a number of dangerous situations were illustrated, for example, a knife had been placed on the edge of the counter. The learners were asked to identify and describe each of the dangers shown in the picture. At the beginning of the task, they were given an example modeling the present conditional and, where necessary, were prompted with a visual cue with the word *if* at the bottom of the picture. The OPTs were designed to elicit more spontaneous use of language in speech. It was also important to include a measure of oral production because a great deal of communication in the work of a childcare provider involves verbal communication with a range of different people, including parents, supervisors, colleagues and children.

Content tests.

Four different content tests were used, one for the pre-test with all the course content included and one for each of the three content units. The content tests consisted of multiple-choice, true/false, and short-answer questions (Appendix B). The questions on the pre-test were about the content covered in the course overall. It was intended to assess if any of the learners had greater content knowledge than the others at the start of the study. After the teacher completed a unit on one of the three target content areas, behaviour management, child abuse, and safety, the learners were given a test that included only the content in that section. The test outcomes were compared between groups in order to determine if content learning was being negatively affected by the focus on form integrated into the instruction for one of the two groups. The tests measured differences between the groups on individual content tests rather than increases over time.

Data Scoring

The content tests were marked using an answer sheet provided by the teacher. The answers to the short-answer questions were marked only for accuracy in content, not for grammar. The answers on the cloze and ECTs were marked with one point for each correct answer. A different scoring method was developed to assess the OPTs. Drawing on Doughty and Varela (1998), the responses given in the two OPTs were given marks for accuracy in function and form. In this way, the scores reflected interlanguage development and an emerging knowledge of the form. For example, in the case of the present conditional task, if a learner used *if* and two clauses, this showed an understanding of the function of the target form. This resulted in partial marks. If the learner also used the form correctly, the answer was given full marks. For example, if a learner said, *if the boy pulling down the kettle, he burn himself,* the learner's response would be given a mark for indicating a hypothetical situation, the function, but not for forming the structures correctly. Each response was scored out of five with four of the marks assigned to accuracy in form. Similarly, the scoring of the answers on the simple past tense task reflected accuracy when the learners chose to use simple past tense and then again in forming the simple past tense. One mark was given for selecting the past tense and another mark for using the simple past correctly. For example, both tense and aspect are correct in the response, *she spilled the milk,* but not in the response, *she was spilling the milk.*

The audio-recorded classroom instruction data were coded using a table created by the researcher for the purposes of this study. It was designed to allow the researcher to document the nature of the instruction without transcribing the entire lesson. A horizontal line indicated a 2-hour lesson broken up into 10-minute increments and a vertical set of boxes indicated several different categories: (a) if the teacher used corrective feedback; (b) what kind of feedback she used; (c) if she used metalinguistic explanations; (d) which form was the target of the focus on form; and (e) how long was the focus on form maintained, in 10 minute increments. A check mark was used to indicate what type of interaction occurred, when and for how long.

A second marker who had been familiarized with the coding procedures by the researcher scored 25% of all the quantitative data and all the measures were rescored by the researcher approximately six months after the initial scoring. Any inconsistencies were corrected.

Data Analysis and Results

Instrument Reliability

Reliability analysis using Cronbach's alpha was conducted on each of the tests in order to establish internal consistency, and item analysis was carried out to determine consistency in difficulty across items. The results of the reliability analysis of the tests varied. The most robust were the ECT and the OPT present conditional test. The result of the ECT was over $\alpha=.90$ and of the OPT present conditional $\alpha=.80$. The cloze tests were moderately robust, $\alpha=.74$ and the OPT simple past tense test was the least robust, $\alpha=.59$. The results of the content tests varied across all four tests: the pre-test attained $\alpha=.71$; and the test for Units 1, 2, and 3 attained $\alpha=.72$, $\alpha=.64$, and $\alpha=.63$, respectively. Item analysis of the language and content tests showed that one item on the cloze test had scored 0.5 in terms of difficulty and was removed from the data set before data analysis.

Descriptive Statistics for Language Measures

In order to respond to the first research question regarding language outcomes, descriptive statistics were calculated for the written and oral production tests. Only those participants who completed the pre-test, the post-test and the delayed post-test were included in the analysis. Table 1 shows the descriptive statistics for the ECT data.

Table 1

Descriptive Statistics for ECT

Group	Pre-test		Post-test		Delayed post-test	
	M	*SD*	*M*	*SD*	*M*	*SD*
FF (*n* = 15)	.65	.23	.78	.16	.79	.17
MF (*n* = 20)	.55	.25	.64	.22	.67	.21

The results in Table 1 show an increase in mean scores from pre-test to post-test for both groups, and a smaller increase for both from post-test to delayed post-test. However, the increase for the FF group between pre-test and post-test is greater, suggesting that this group benefitted more from their instruction than the MF group. The statistics also show that the mean scores of the FF group started higher and remained higher on all three tests than those of the MF group.

Table 2

Descriptive Statistics for Cloze Task

Group	Pre-test		Post-test		Delayed post-test	
	M	*SD*	*M*	*SD*	*M*	*SD*
FF (*n* = 15)	.71	.18	.72	.20	.77	.14
MF (*n* = 20)	.54	.26	.63	.24	.62	.23

The descriptive statistics for the cloze test in Table 2 show a different pattern. Both groups increased in scores from pre-test to post-test. However, in this case, the mean scores of the MF group from pre-test to post-test show a greater increase than the FF group, suggesting that the MF group benefitted more from their instruction. This group's scores, however, decreased slightly from post-test to delayed post-test while the FF group's scores increased. On all three tests, as with the ECT, the mean scores of the FF group were higher than those of the MF group.

Table 3

Descriptive Statistics for OPTs

Measure	Group	Pre-test		Post-test		Delayed post-test	
		M	*SD*	*M*	*SD*	*M*	*SD*
present conditional	FF (*n* = 16)	.54	.20	.74	.16	.75	.15
	MF (*n* = 20)	.42	.23	.56	.25	.57	.21
simple past tense	FF (*n* = 16)	.57	.22	.51	.21	.48	.20
	MF (*n* = 20)	.41	.22	.32	.26	.41	.19

The OPT mean scores, contained in Table 3, showed some variation between the two target forms. The mean scores on the present conditional test increased for both groups from the pre-test to post-test and continued to increase slightly on the delayed post-test. The FF group's increase was greater than the MF group. The mean scores on the present conditional OPT attained by the FF group were consistently higher than those of the MF group on all three tests. The past tense OPT descriptive statistics in Table 3 show that, once again, the FF group's mean scores were higher than the MF group on all three tests. However, on this test the mean scores of both groups decreased from pre-test to post-test, and continued to decrease for the FF group.

Results of Language Measures Analysis

In order to examine the descriptive data further and to determine if the results are statistically significant, the data were subjected to repeated measures analysis of variance (ANOVA). Independent samples *t*-tests were conducted to confirm if group differences on the pre-tests were statistically significant; the results showed that the group pre-test differences were statistically significant for the cloze test, $t(33)=2.25$, $p = .031$, $d=.797$ and the simple past tense OPT, $t(34)=2.18$, $p = .037$, $d=.728$, but not for the ECT, $t(33)=1.17$, $p = .250$, $d=.402$, and the present conditional OPT, $t(34) =1.55$, $p = .131$, $d=.526$. Based on these results, when the *t*-test results indicated that the pre-test differences were statistically significant, as in the case of the cloze task and the simple past tense OPT, the data were subjected to a repeated measures of covariance (ANCOVA) using the pre-test scores as a covariant.

The results of ANOVA of the ECT scores showed a statistically significant time effect, $F(2, 32) = 13.26$, $p = .000$, η2 = .453, but no statistically significant effect for instruction, $F(2, 32) = .501$, $p = .610$, η2 = .030. ANCOVA results for the cloze test data also indicated that there was no statistically significant effect for instruction, $F(1, 32) = 2.82$, $p = .103$, η2 = .081. ANOVA results for the present conditional OPT indicated a statistically significant time effect, $F(2, 33) = 17.45$, $p = .000$, η2 = .514, but no statistically significant effect for instruction, $F(2, 33) = .66$, $p = .511$, η2 = .040. ANCOVA results for the simple past tense OPT showed no statistically significant effect for instruction, $F(1, 33) = 3.08$, $p = .088$, η2 = .085.

Overall, the results of the repeated measures analyses indicated that both groups improved over time during the 10-week period of instruction with no group difference in

the degree to which they improved. In other words, the results suggest that the FFI treatment did not have an effect on language learning outcomes as measured in this study.

Language Outcomes for the Different Target Forms

Data analysis was also carried out to explore if there was any difference in the impact of the treatment on the learning of two different target forms. The ECT scores for the present conditional items and the simple past tense items were analysed separately. The cloze task data was not included in this analysis because of the few present conditional items available after one item was removed following item analysis. Table 4 shows the means for the present conditional scores and the simple past tense scores on the ECT.

Table 4

Descriptive Statistics for ECT by Target Feature

Target Form	Group	Pre-test		Post-test		Delayed post-test	
		M	*SD*	*M*	*SD*	*M*	*SD*
Present conditional	FF (*n* = 12)	.67	.27	.84	.11	.82	.16
	MF (*n* = 20)	.49	.30	.52	.30	.54	.28
Simple past tense	FF (*n* = 14)	.80	.16	.84	.13	.86	.12
	MF (*n* = 20)	.65	.27	.76	.18	.79	.19

The means indicate a pre-test difference between the two groups on the present conditional form. However, an independent samples *t*-test indicated that this difference was not statistically significant, $t(30)=1.74$, $p = .092$, $d=.647$. The means for both groups showed an increase over time. Repeated measures ANOVA confirmed this increase to be statistically significant for both groups, $F(2, 29) = 4.18$, $p = .025$, $\eta^2 = .224$, with no significant difference between the groups, $F(2, 29) = 1.15$, $p = .233$, $\eta^2 = .096$. With regard to the simple past tense data, once again, the apparent pre-test difference between the two groups was not found to be statistically significant: $t(32) =1.81$, $p = .078$, $d=.680$. As in the case of the ECT data, ANOVA showed an effect for time, $F(2, 31) = 7.65$, $p = .002$, $\eta^2 = .331$, but not for treatment, $F(2, 31) = 1.13$, $p = .337$, $\eta^2 = .068$. In sum, the results indicate that there was no difference in the impact of the treatment on the two target forms as measured by the ECT.

Content Learning Outcomes

With regard to the content tests, the data of all the study participants was included to give an indication of content learning for specific units. Table 5 provides the descriptive statistics for the pre-test and the content tests completed after each of the three units of content.

Table 5

Descriptive Statistics for Content Tests

Test	Group	M	SD
Pre-test	FF (*n*=18)	.44	.12
	MF (*n*=22)	.42	.15
Unit 1	FF (*n*=12)	.58	.18
	MF (*n*=17)	.39	.14
Unit 2	FF (*n*=15)	.83	.10
	MF (*n*=20)	.62	.16
Unit 3	FF (*n*=14)	.84	.11
	MF (*n*=18)	.72	.12

The means show a slightly higher pre-test score for the FF group and consistently greater scores for the FF group on the other tests. Independent *t*-tests showed that the difference in the pre-test was not statistically significant between the FF and MF groups, while the differences on the subsequent tests were statistically significant. Table 6 shows the results of the independent *t*-test results for the content pre-test and the three unit-specific content tests.

Table 6

Content Tests Group Comparison

Test	*T*	*df*	*sig. (2-tailed)*	*d*
Pre-test	.42	38	.679	.14
Unit 1	3.18	27	.004	1.18
Unit 2	4.66	32.45	.000	1.51
Unit 3	2.81	30	.009	1.00

Learner Demographics and Outcomes

In addition to language and content learning outcomes, the learner demographic profile information was analysed to investigate any relationship to the outcomes. A comparison of the data from the FF and MF groups showed a difference in the number who had completed degrees or training in childcare before enrolling in the program: 50% of the participants in the FF group had done so versus approximately 16% of the MF participants. This difference was found to be statistically significant: $F(1, 40) = 5.84$, $p = .020$, $\eta^2 = .127$. ANOVA was conducted to investigate if there was a relationship between professional education or training and the learners' performance on the content tests, the area with the only significant treatment difference. The results show no statistically significant

relationship between previous education or training in childcare and the learners' performance on two of the content unit tests: Unit 1, $F(1,28) = .65$, $p = .427$, $\eta 2 = .023$, and Unit 3, $F(1, 30) = 2.21$, $p = .148$, $\eta 2 = .069$. The results of the Unit 2 test showed a relationship approaching significance, but with a small effect size: $F(1, 33) = 4.07$, $p = .052$, $\eta 2 = .110$.

Audio-Recorded Instructional Data

The data captured in the coding charts of the instructional audio-recordings was tabulated and indicated that a total of 28 hours (1,680 minutes) of instruction (excluding individual work) was recorded in the FF group and 27 hours (1,620 minutes) in the MF group. A qualitative review showed that both groups received instruction with an overriding focus on content throughout the instructional time. For the FF group, the recording contained approximately 100 minutes of metalinguistic explanation of the present conditional form and 50 minutes of explanation of the simple past tense. With regard to corrective feedback in the FF group, 70 minutes of explicit feedback was directed at the present conditional form and 20 minutes of explicit feedback addressed the simple past tense form. The explicit corrective feedback was delivered in three of the 11 lessons with no explicit corrective feedback provided in the remaining lessons. No recasts were evident in the FF recordings, while two instances of recasts to correct the simple past tense forms were observed in the analysis of the MF group recordings. These findings were contrary to the expectations as set out in the design of the instructional treatment, a point that will be discussed further.

Discussion

The first research question investigated the effects of FFI on language learning. The results indicate that overall, the learners in both groups made language learning gains on most of the measures, and that there were no discernible advantages for either group. On the surface, these findings would seem to support claims that content-rich meaningful input is sufficient for language learning to occur (Krashen, 1982) and that a focus on content can lead to incidental language learning (Dalton-Puffer, 2007; Grabe & Stoller, 1997). This would be consistent with findings from some content-based second language programs where grammar teaching has been characterized as largely incidental and unplanned (Brinton et al., 2003; Burger et al., 1997) and in which learners have shown increases in oral production abilities (Burger & Chretien, 2001).

A review of the coding of the classroom instruction confirmed that the MF group received the instruction as planned, with a focus on content and with no explicit focus on form. However, the audio data also showed that the use of recasts as corrective feedback was minimal since only two instances of recasting were evident in 27 hours of recorded instruction. In the FF group, there was no evidence of recasts and the explicit corrective feedback was limited to three of the 11 lessons rather than being distributed throughout the treatment.

These results raise the question about the role that corrective feedback may play in raising learner awareness of form in a meaning-based context. Doughty (2001) has

suggested that corrective feedback helps learners make form-meaning connections by drawing on learners' still active memory of their own errors as they attempt to make meaning. In this way, the feedback helps make the forms salient and the form-meaning connections apparent to learners. N. C. Ellis (2004) has suggested that the bigger the gap between the error and the feedback, the less likely a focus on form will facilitate form-meaning connections. Corrective feedback may capitalize on the learner's heightened awareness of meaning due to the fact that they are engaged in communicating and exerting effort to make their communication understood.

Corrective feedback may enhance the impact of metalinguistic explanations by priming learners for processing form-meaning connections (Ellis, N. C., 2005) and encouraging learners to notice the gaps in their language proficiency where other options that focus on form, such as text enhancement or metalinguistic explanation, might help the learner notice the form but not the gap between the two. Along these lines, Lyster (2004a) investigated the effectiveness of FFI with and without corrective feedback in French immersion classrooms. He operationalized FFI to include text enhancement, metalinguistic explanation and practice tasks, and compared post-test results for learners who received the FFI with corrective feedback with others who received the FFI without corrective feedback. His findings indicated a benefit for FFI with corrective feedback over FFI without corrective feedback. Lyster concluded that learners were able to capitalize on the priming the FFI provided in the treatment. In the present study, both FF and MF groups of learners showed improvement. However, it is possible that the learners in the FF group might have shown greater improvement if they had received the benefit of priming from the provision of more extensive corrective feedback provided throughout the treatment rather than limited to three of the lessons.

Lastly, though it was not a primary focus of this study, the different results of the two groups' production of the two target forms merit some attention. There was no significant difference in the results for the two forms on the ECT which included both the simple past tense and the present conditional in the same tests. The OPTs addressed the two forms separately and the results were different for the two forms. The present conditional OPT showed an increase in scores while the simple past tense OPT results showed that the scores for neither the FF nor the MF group increased. In fact, the results for both groups demonstrated a decrease in scores from pre-test to post-test. While it is difficult to say what accounted for the decrease in scores, the lack of an increase may be related to two factors: the nature of the form under investigation and the attention paid to it during treatment. First, the simple past tense is less salient, both aurally and in terms of the form-meaning connection, than the present conditional; the simple past tense morphology for the regular form is sometimes difficult to distinguish phonetically from the present tense (the difference between *he like it* and *he liked it)*. In addition, reference to the past can often be communicated by other lexical information (using another word such as *yesterday*). These features of the form may have played a role in other research that has also reported that learning of the simple past tense is affected differently by a focus on form than are other linguistic features (Mackey, 2006).

The second research question investigated the effects of FFI on content learning. A comparison of the pre-test scores on the content tests showed that the two groups were not significantly different in terms of the level of professional knowledge they brought to the course. Yet, the results of the three subsequent content tests showed that the FF group consistently and significantly outperformed the MF group. It appears that rather than

detracting from content learning, the FF treatment may have enhanced the learning of content for the learners in this context.

While surprising, this finding is not unique. Wong's (2003) study of text enhancement showed a positive effect on content recall. She suggested that this may have been because in that study the entire clause, not only the grammatical form, was enhanced, capturing content as well. This may have encouraged learners to take note of the text and process it for meaning rather than attending only to the form. Similarly, it is possible that a focus on form in the present study may have engaged learners more fully and encouraged them to recall the meaningful content.

An alternative interpretation is that the provision of FFI may have contributed to the learners' language proficiency in terms of receptive development. In other words, the FFI may have helped learners understand the language used in the content. This comprehension-based relationship between content and language has traditionally been the basis for content-based language instruction that focuses on a model of *language serving content,* in which enhanced language proficiency allows the learner to access the content (Snow, Met, & Genesee, 1989).

The question remains, however, as to why there was no measurable advantage for the FF group in language learning. This may be related to the type of measures used. In the present study, the tasks were designed to measure the learners' knowledge of the target grammar forms in a variety of ways that included controlled written formats and more spontaneous speaking tasks. All the tasks, however, measured language production and did not measure comprehension as a separate outcome. This focus on production as the primary measurement of second language development is considered by researchers and supporters of comprehension-based language teaching to be a serious oversight (Burger & Doherty, 1992; Courchêne, 1992; Paribakht & Raymond, 1992).

In fact, in the course of the present study, a substantial amount of time was spent reading authentic material and listening to content-driven input from the teacher, which is typical of many content-based classes. Such activities are intended to enhance comprehension. As such, it would be useful to use measures of comprehension to provide evidence of gains in language acquisition. Measures of comprehension might have shown advantages for the FF group over the MF group in language outcomes and would have provided an explanation for the positive impact on content learning as well as supporting the benefits of FFI.

Study Limitations

Some limitations may have influenced the outcomes of this study, possibly related to the nature of classroom-based, quasi-experimental research in adult content-based language programs. Content-based language programs for adults are not widely available. This limits the number of learner participants overall. In addition, the number of learners studying the same content at the same proficiency level is further reduced. For this reason it was not possible to pilot the study and therefore enhance the robustness of the data collection instruments and the generalizability of the findings.

Of greater impact, however, may have been the treatment application by the teacher. As noted earlier the treatment provided to the FF group was designed to include the provision of explicit corrective feedback throughout the treatment, yet the audio recordings revealed that the corrective feedback was limited to three of the 11 lessons. This

unexpected teacher variable has been reported in other studies as well (Day & Shapson, 1991; Harley, 1989; Spada & Lightbown, 1993). The effect of this variable in the present study is such that the findings may not speak to the effectiveness of FFI overall, but only to the effect of metalinguistic explanation and the use of form-focused tasks.

In addition, group differences may have played a role in the findings in two ways. First, while analysis indicated statistically significant pre-test differences for few of the tests, it is unclear to what extent overall proficiency may have differed between the two groups. Overall proficiency was measured with a global competency test that does not align to tests of grammatical development. In addition, it is unclear as to what effect the differences in class schedules may have had on the learners. The FF group attended class over five hours during the day on one day of the week while the MF group attended the same number of hours over two evening sessions, with many of the MF group learners attending after a day at work and possibly fatigued.

Conclusion and Implications

This study set out to investigate the effect of FFI on language and content learning in a content-based language classroom. On the question of the effect of FFI on language learning outcomes, the findings of the study do not support the claim that the introduction of a focus on form in content-based instruction will improve grammatical accuracy. However, there is evidence that the converse is true; the findings do not support pedagogical decisions against a focus on form and in favour of entirely meaning-focused instruction in such contexts. The findings indicate that content learning was not negatively affected by the inclusion of a focus on form, which has been a rationale cited by content-based teachers as a reason not to focus on form (Zyzik & Polio, 2008). In fact, the results suggest that the inclusion of FFI enhanced content learning. Research that includes multiple ways of assessing content learning could shed more light on this relationship. In previous studies, content learning has been assessed as recall of specific content while future research would provide insight by including the assessment of comprehension and ability to apply content knowledge.

Theoretically the findings of the present study raise important questions about the role of corrective feedback in helping learners make form-meaning connections in content-based language instruction striving to integrate attention to language form and content knowledge. The present discussion has highlighted the premise that corrective feedback has been shown to be a powerful tool for the integration of attention to language forms and content. Corrective feedback is situated in spontaneous interaction and as such can be provided when learners are focused on meaning, increasing the chances that learners might connect form and meaning. In addition, because it can be provided frequently and briefly, corrective feedback may build on the priming achieved by other FFI components provided earlier to learners, once again leading to stronger links between content and language. In this study, it is possible that the lack of corrective feedback rendered the overall FFI neutral and therefore no statistically significant difference was found between the FF and MF groups. Research in FFI has examined different options in isolation, yet it would be valuable to pursue more research that compares these options in combination with corrective feedback as well, an agenda that is currently limited.

Also of note is the finding that both groups, regardless of treatment, made measurable gains in language learning outcomes in terms of their knowledge of the two

forms. This has implications for program design and for classroom practice in that it lends support to the benefits of content-based language teaching and it encourages program designers and classroom teachers to continue providing instructional programs that include a strong emphasis on content. What the study was unable to demonstrate was whether a focus on form in such contexts, if adequately delivered to exploit form-meaning connections in the content, can further accelerate the process of language acquisition.

With regard to content, the results confirmed that a focus on form did not detract from content learning, and in fact they suggested that content learning had been enhanced by the provision of FFI. On the surface, this finding appears encouraging for those teachers who are reluctant to introduce a focus on form in content-based classrooms out of concern for the effect on content learning, and it should be noted that had the FFI included extensive corrective feedback as planned, the study might have shown more positive results for language learning as well, achieving the full benefits of the content-based language teaching model.

Finally, it is important to consider the role of content in content-based language instruction. In the study, the focus is on the challenge of learning language rather than content in content-based language programs. Attention to content and meaning is considered the default state for learner attention. However, the nature of the content may have an impact on how learners attend to language form. For example, Ready and Wesche (1992) found that language outcomes varied across disciplines, with weaker gains made by political science students than psychology or history students. They suggested that the course content might have played a role in this; the content of the political science course may not have had an organized structure that facilitated the use of redundant language necessary for content learning to be integrated with attention to language form. Han (2008) explored how the complexity of content and meaning influenced the efficacy of recasts and argued that meaning poses its own learning challenges. In the context of content-based language learning and teaching, this may require a repositioning of FFI and the role of conscious attention, from one in which form and meaning are treated as competing dimensions of learning, to one in which they are investigated as synchronous processes.

Acknowledgements

References

Admiraal, W., Westhoff, G., & de Bot, K. (2006). Evaluation of bilingual secondary education in the Netherlands: Students' language proficiency in English. *Educational Research and Evaluation, 12*(1), 75-93.

Alegría de la Colina, A., & García Mayo, M. P. (2007). Attention to form across collaborative tasks by low-proficiency learners in an EFL setting. In M. P. García Mayo (Ed.), *Investigating tasks in formal language settings* (pp. 91-116). Clevedon, UK: Multilingual Matters.

Brinton, D. M., Snow, M. A., & Wesche, M. (2003). *Content-based second language instruction*. Ann Arbor, MI: University of Michigan.

Burger, S., & Chretien, M. (2001). The development of oral production in content-based second language courses at the University of Ottawa. *Canadian Modern Language Review, 58*(1), 84-102.

Burger, S., & Doherty, J. (1992). Testing receptive skills within a comprehension-based approach. In R. J. Courchêne, J. I. Glidden, J. St. John, & C. Therien (Eds.), *Comprehension-based second language teaching* (pp. 299-318). Ottawa, Canada: University of Ottawa Press.

Burger, S., Wesche, M., & Migneron, M. (1997). Late, late immersion: Discipline-based second language teaching at the University of Ottawa. In R. K. Johnson & M. Swain (Eds.), *Immersion education: International perspectives* (pp. 65-84). Cambridge, UK: Cambridge University Press.

Courchêne, R. (1992). A comprehension-based approach to curriculum design. In R. J. Courchêne, J. I. Glidden, J. St. John, & C. Therien (Eds.), *Comprehension-based second language teaching* (pp. 95-118). Ottawa, Canada: University of Ottawa Press.

Crandall, J., & Kaufman, D. (2005). *Content-based instruction in primary and secondary school settings*. Alexandria,VA: TESOL.

Dalton-Puffer, C. (2007). *Discourse in content and language integrated learning (CLIL) classrooms.* Philadelphia, PA: Benjamin.

Day, E. M., & Shapson, S. M. (1991). Integrating formal and functional approaches to language teaching in French immersion: An experimental study. *Language Learning, 51*(1), 47-80.

Doughty, C. (2001). Cognitive underpinnings of focus on form. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 206-257). New York, NY: Cambridge University Press.

Doughty, C., & Varela, E. (1998). Communicative focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 114-138). New York, NY: Cambridge University Press.

Doughty, C., & Williams, J. (1998). *Focus on form in classroom second language acquisition.* New York, NY: Cambridge University Press.

Ellis, N. C. (2004). The processes of second language acquisition. In B. VanPatten, J. Williams, S. Rott, & M. Overstreet (Eds.), *Form-meaning connections in second language acquisition* (pp. 50-76). Mahwah, NJ: Lawrence Erlbaum.

Ellis, N.C. (2005). At the interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition, 27,* 305-352.

Ellis, R. (2001). Investigating form-focused instruction. *Language Learning, 51*(1), 1-46.

Ellis, R. (2002). Does form-focused instruction affect the acquisition of implicit knowledge? *Studies in Second Language Acquisition, 24*(2), 223-236.

Ellis, R. (2007). The differential effects of corrective feedback on two grammatical structures. In A. Mackey (Ed.), *Conversational interaction in SLA* (pp. 339-360). Oxford, UK: Oxford University Press.

Fotos, S., & Ellis, R. (1991). Communicating about grammar: A task-based approach. *TESOL Quarterly, 25*, 605-628.

García Mayo, M. P. (2002). The effectiveness of two form-focused tasks in advanced EFL pedagogy. *International Journal of Applied Linguistics, 12,* 156-175.

Grabe, W., & Stoller, F. L. (1997). Content-based instruction: Research foundations. In M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom. Perspectives on integrating language and content* (pp. 5-21).White Plains, NY: Addison Wesley Longman.

Grim, F. (2008). Integrating focus on form in L2 content-enriched instruction lessons. *Foreign Language Annals, 41*(2), 321-346.

Han, Z. (2002). A study of the impact of recasts on tense consistency in L2 output. *TESOL Quarterly, 36*(4), 543-572.

Han, Z. (2008). On the role of meaning in focus on form. In Z. Han (Ed.), *Understanding second language process* (pp. 45-79). New York, NY: Multilingual Matters.

Harley, B. (1989). Functional grammar in French immersion: A classroom experiment. *Applied Linguistics, 19,* 331-359.

Harley, B. (1992). Aspects of oral second language proficiency of early immersion, late immersion and extended French students at grade 10. In R. J. Courchêne, J. I. Glidden, J. St. John, & C. Therien (Eds.), *Comprehension-based second language teaching* (pp. 371-388). Ottawa, Canada: University of Ottawa Press.

Harley, B., Cummins, J., Swain, M., & Allen, P. (1990). The nature of language proficiency. In B. Harley, P. Allen, J. Cummins, & M. Swain (Eds.), *The development of second language proficiency* (pp. 7-25). New York, NY: Cambridge University Press.

Kasper, L. F. (1995). Theory and practice in content-based ESL reading instruction. *English for Specific Purposes*, *14*(3), 223-230.

Klee, C. A., & Tedick, D. J. (1997). The undergraduate foreign language immersion program in Spanish at the University of Minnesota. In S. B. Stryker & B. L. Leaver (Eds.), *Content-based instruction in foreign language education: Models and methods* (pp. 173-218). Washington, DC: Georgetown University Press.

Krashen, S. (1982). *Principles and practices in second language acquisition*. Oxford, UK: Pergamon Press.

Krueger, M., & Ryan, F. (1993). *Language and content: Discipline- and content-based approaches to language study*. Lexington, MA: D.C. Heath and Company.

Lasagabaster, D. (2008). Foreign language competence in content and language integrated learning. *The Open Applied Linguistics Journal, I,* 31-42.

Leaver, B. L. (1997). Content-based instruction in a basic Russian program. In S. Stryker & B. L. Leaver (Eds.), *Content-based instruction in foreign language education: Models and methods* (pp. 30-54). Washington, DC: Georgetown University Press.

Lee, S. (2007) Effects of textual enhancement and topic familiarity on Korean EFL students' reading comprehension and learning of passive form. *Language Learning 57*(1), 87-118.

Leeman, J., Arteagoitia, I., Fridman, B., & Doughty, C. (1995). Integrating attention to form within meaning: Focus on form in content-based Spanish instruction. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning and teaching* (pp. 215-258). Honolulu, HI: University of Hawai'i, Second Language Teaching and Curriculum Center.

Leow, R. P. (1997). The effects of input enhancement and text length on adult L2 readers' comprehension and intake in second language acquisition. *Applied Language Learning, 8*(2), 151-182.

Leow, R. P., Egi, T., Nuevo, A. M., & Tsai, Y. (2003). The roles of textual enhancement and type of linguistic item in adult L2 learners' comprehension and intake. *Applied Language Learning, 13,* 93-108.

Long, M. (2007). *Problems in SLA*. Mahwah, NJ: Lawrence Erlbaum.

Loschky. L., & Bley-Vroman, R. (1993). Grammar and task-based methodology. In G. E. Crookes & S. M. E. Gass (Eds.), *Tasks and language learning: Integrating theory and practice* (pp. 123-167). Clevedon, Avon, England: Multilingual Matters.

Lyster, R. (1998). Recasts, repetition, and ambiguity in L2 classroom discourse. *Studies in Second Language Acquisition, 20,* 51-81.

Lyster, R. (2004a). Differential effects of prompts and recasts in form-focused instruction. *Studies in Second Language Acquisition, 26*, 399-422.

Lyster, R. (2004b). Research on form-focused instruction in immersion classrooms: Implications for theory and practice. *Journal of French Language Studies, 14,* 321-341.

Lyster, R. (2007). *Learning and teaching languages through content: A counter-balanced approach*. Amsterdam, Netherlands/Philadelphia, PA: John Benjamins.

Lyster, R., & Mori, H. (2006). Interactional feedback and instructional counterbalance. *Studies in Second Language Acquisition, 28,* 269-300.

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition, 20,* 37-66.

Mackey, A. (2006). Feedback, noticing and instructed second language learning. *Applied Linguistics, 27*(3), 405-430.

Miller, P. C. (2003). The effectiveness of corrective feedback: A meta-analysis (Doctoral dissertation). Retrieved from *Dissertation Abstracts International, 64*(10), 3610.

Musumeci, D. (1996). Teacher-learner negotiation in content-based instruction: Communication at cross-purposes? *Applied Linguistics, 17,* 286-325.

Nicholas, H., Lightbown, P. M., & Spada, N. (2001). Recasts as feedback to language learners. *Language Learning, 51*(4), 719-758.

Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50, 417-528.

Paribakht, T., & Raymond, P. (1992). The implementation of the comprehension-based approach: The University of Ottawa experience. In R. J. Courchêne, J. I. Glidden, J. St. John, & C. Therien (Eds.), *Comprehension-based second language teaching* (pp. 281-298). Ottawa, Canada: University of Ottawa Press.

Pawlikowska-Smith, G. (2000) *Canadian language benchmarks 2000: English as a second language for adults*. Ottawa, Canada: Centre for Canadian Language Benchmarks.

Pica, T. (2002). Subject-matter content: How does it assist the interactional and linguistic needs of classroom language learners? *The Modern Language Journal, 86*(1), 1-19.

Ready, D., & Wesche, M. (1992). An evaluation of the University of Ottawa's sheltered program: Language teaching strategies that work. In R. J. Courchêne, J. I. Glidden, J. St. John, & C. Therien (Eds.), *Comprehension-based second language teaching* (pp. 389-404). Ottawa: University of Ottawa Press.

Rodgers, D. M. (2006). Developing content and form: Encouraging evidence from Italian content-based instruction. *The Modern Language Journal*, *90,* 373-386.

Ruiz de Zarobe, Y. (2008). CLIL and foreign language learning: A longitudinal study in the Basque Country. *International CLIL Research Journal, 1*(1), 60-73.

Russell, V. J., & Spada, N. (2006). The effectiveness of corrective feedback for second language acquisition: A meta-analysis of the research. In J. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 133-164). Amsterdam, Netherlands: John Benjamins.

Samuda, V. (2001). Guiding relationships between form and meaning during task performance: The role of the teacher. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks:Second language learning, teaching and testing* (pp. 119-140). Harlow, UK: Pearson.

Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*(2), 129-158.

Sheen, Y. (2004). Corrective feedback and learner uptake in communicative classrooms across instructional settings. *Language Teaching Research 8*(3), 263-300.

Smit, U. (2008). Research in progress. The AILA research network, CLIL and immersion classrooms: Applied linguistics perspectives, *Language Teaching, 41*(2), 295-298.

Snow, M. A., & Brinton, D. M. (1997). *The content-based classroom: Perspectives on integrating language and content.* White Plains, NY: Addison Wesley Longman.

Snow, M. A., Met, M., & Genesee, F. (1989). A conceptual framework for the integration of language and content-based language instruction. *TESOL Quarterly*, *23*(2), 201-217.

Spada, N. (1997). Form-focused instruction and second language acquisition: A review of classroom and laboratory research. *Language Teaching, 29,* 73-87.

Spada, N. (2011). Beyond form-focused instruction: Reflections on past, present and future research. *Language Teaching Research, 44*(2), 225-236.

Spada, N., & Lightbown, P. M. (1993). Instruction and the development of questions in L2 classrooms. *Studies in Second Language Acquisition, 15*(2), 205-224.

Stoller, F. L. (2004). Content-based instruction: Perspectives on curriculum planning. *Annual Review of Applied Linguistics, 24,* 261-283.

Stryker, S. B., & Leaver, B. L. (Eds.). (1997). *Content-based instruction in foreign language education: Models and methods.* Washington, DC: Georgetown University Press.

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.

Swain, M. (1996). Integrating language and content in immersion classrooms: Research perspectives. *Canadian Modern Language Review, 52*(4), 529-548.

Swain, M. (2000). French immersion research in Canada: Recent contributions to SLA and applied linguistics. *Annual Review of Applied Linguistics, 20,* 199-212.

Swain, M., & Lapkin, S. (2001). Focus on form through collaborative dialogue: Exploring task effects. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks: Second language learning, teaching and testing* (pp. 99-118). Harlow, UK: Pearson Education.

Toth, P. D. (2004). When grammar instruction undermines cohesion in L2 Spanish classroom discourse. *The Modern Language Journal, 88*(1), 14-30.

Trahey, M., & White, L. (1993). Positive evidence and preemption in the second language classroom. *Studies in Second Language Acquisition, 15*, 181-204.

Turnbull, M., Lapkin, S., & Hart, D. (2001). Grade 3 immersion students' performance in literacy and mathematics: Province-wide results from Ontario (1998-99). *Canadian Modern Language Review, 58*(1), 9-26.

Van de Craen, P., Mondt, K., Allain, L., & Gao, Y. (2007). Why and how CLIL works: An outline for a CLIL theory. *Vienna English Working Papers, 16*(3), 70-78.

VanPatten, B. (1990). Attending to form and content in the input. *Studies in Second Language Acquisition, 12,* 287-301.

Wesche, M. B., & Skehan, P. (2002). Communicative, task-based, and content-based language instruction. In R. B. Kaplan (Ed.), *The Oxford handbook of applied linguistics* (pp. 207-228). New York, NY: Oxford University Press.

White, J. (1998). Getting the learners' attention: A typographical input enhancement study. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 85-113). New York, NY: Cambridge University Press.

White, J., Spada, N., Lightbown, P., & Ranta, L. (1991). Input enhancement and L2 question
        formation. *Applied Linguistics, 12*(4), 416-432.
Williams, J. (2005). Form-focused instruction. In E. Hinkel (Ed.), *Handbook of research in second
        language teaching and learning* (pp. 671-692). Mahwah, NJ: Lawrence Erlbaum.
Williams, J., & Evans, J. (1998). What kind of focus and on which forms? In C. Doughty & J.
        Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 139-155).
        New York, NY: Cambridge University Press.
Wong, W. (2003). Textual enhancement and simplified input: Effects on L2 comprehension and
        acquisition of non-meaningful grammatical form. *Applied Language Learning, 13*, 17-45.
Zyzik, E., & Polio, C. (2008). Incidental focus on form in university Spanish literature courses. *The
        Modern Language Journal, 92*(i), 53-70.

Appendix A

Sample Sentences from ECT and Cloze Test

1.	If my son goes to bed late tonight, he is tired tomorrow.
2.	Yesterday, someone call me at home very late.
3.	Before coming to Canada, where you lived?
4.	If we read to our children, they learning to enjoy books.
5.	If it's too cold, the children should staying inside.
6.	Did you came to school yesterday?

Mary's day at work

This story is about an ECE named Mary. Some of the words are missing from the story. Look at the words in the brackets. Change them to best complete the sentence. The first is done for you as an example.

Mary ___**works**____ (*work*) as an ECE in a daycare centre in Toronto. Yesterday, Mary worked from 7:00 am to 3:00 pm and it was a very busy day.

At 7:30 am a new parent came in to register her child. When the parent _____ *(leave)* the child started screaming. Usually, the parent stays for a few minutes if it _____ *(be)* the child's first day. But the parent had to leave so Mary had to calm down the child by herself.

At 8:00 am, another parent dropped off her boy. Mary _____ *(notice)* that he was coughing and sneezing and asked the mother if the child was sick. If a child is sick, he should _____ *(stay)* home.

Appendix B

Excerpt from Content Test

Name: _____

Part 1: Answer T for True or F for False

1. Corporal punishment should only be used when nothing else works.   _____

2. Taking away food must never be used as a punishment.   _____

3. If a child misbehaves, it's OK to put a child in a locked room away
   from other children.   _____

4. Daycare operators must review their policies and procedures for
   behaviour management once every two years.   _____

5. Teachers should use the same behavior management strategy
   for all the children in the daycare.   _____

Part 2: Write your answers in point form on the lines.

1.   What is the difference between punishment and discipline?
   _____

2.   Name three basic needs of a child as defined in the DNA.
   _____

3.   How does a teacher decide what kind of technique to use for behavior management?
   _____