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GREATCLIL Camps Integrating School-Based Curricula: An Analysis of Learning Motivation in Remote Areas of Taiwan

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Abstract: Although several studies have suggested the potential of Content and Language Integrated Learning (CLIL) programmes to increase students' learning motivation, there is a shortage of empirical evidence to support this. This chapter presents the results of a study comparing data from traditional primary and secondary formal English (non-CLIL) classes with data from a CLIL-based summer camp intervention based on an innovative curricular model called GREATCLIL. The research was carried out in remote and rural schools in Taiwan and included 107 school camps. The schools were purposely selected due to their reported low levels of English language study pressure and low English learning motivation. The findings support the efficacy of the GREATCLIL camps, as participants' affective filter was lower than during their formal classes, with associated lower amotivation and stronger extrinsic motivation and intrinsic motivation, as learning took place in a relatively anxiety-free environment. Although the GREATCLIL students in the study favoured language competence over content knowledge, the findings clearly indicated that content was considered almost as important in terms of learning motivation and associated learning outcomes.

Keywords: content and language integrated learning, English across the curriculum, English learning motivation, student engagement

Debuting in the mid-1990s, Content and Language Integrated Learning (CLIL) has evolved from merely a method for increasing exposure to a foreign language into an educational approach for language classroom practice adopted widely

across Europe, based on the need for multilingual citizens (European Commission, 2010). With a large and growing body of literature, CLIL has gained attention in the Taiwanese primary and secondary education community due to its perceived benefits for developing the English proficiency of English as a foreign language (EFL) students and for equipping global citizens with foreign language skills. According to Wenhsien Yang (2016), this phenomenon can be traced back to the years between 1979 and 2010, when the Taiwanese Ministry of Education (MOE) conducted a nation-wide appraisal of 92 CLIL-based degree programmes. Based on the MOE's report on September 19, 2018, administrators began to develop the "Taiwan into a Bilingual Nation by 2030" policy. The National Development Council was designated to serve as the coordinating agency to propose a blueprint for the implementation of the policy. Thus, CLIL was officially adopted as policy based on the government's blueprint for developing Taiwan into a bilingual nation (National Development Council, 2018).

From a European perspective, CLIL programmes not only introduce students to new concepts through offering courses in a foreign language, but are also aimed at increasing students' confidence and motivation in both the foreign language and their mother language (Bentley, 2010; Järvinen, 2006; Pladevall-Ballester, 2018). David Marsh (2000) notes that CLIL includes subtle aims to help students understand the value of learning a language and developing a "can-do" attitude to language learning. Yet, there is a shortage of studies in Taiwan exploring the design of integrative CLIL programmes, particularly in terms of how specific strategies can be embedded in the learning process for both content and language acquisition. Both EFL educators and students often find themselves frustrated in CLIL classrooms due to inadequate background and training on pedagogical approaches and lack of access to materials, which, in turn, limits the success of CLIL teaching and learning. This issue is significant in countries like Taiwan where there is a strong divergence between content-related and foreign language competencies and a lack of teachers possessing both competencies. Due to the potential impact of the aforementioned frustrations among teachers and learners, this chapter introduces a framework developed as part of a recent study into CLIL-based summer camps, which is intended to help teachers to develop school-based CLIL camp curricula. This chapter also seeks to evaluate whether these teacher-developed CLIL materials can positively influence CLIL campers' learning motivation.

A school-based curriculum is central to the study highlighted in this chapter. In the 1970s a decentralised educational system featuring school-based curricula (SBC) was first introduced in Australia and New Zealand, a model which later influenced other countries (Li, 2006). In Taiwan, teachers have been encouraged to participate in implementing SBC projects subsidized by the MOE

since the early 2000s. This chapter advocates for CLIL knowledge integration in SBC contexts, and discusses the evaluation of campers' knowledge, perceptions, and learning motivations. A five-stage GREAT-Cycle framework (Get to know the school; Research and background assessment; Evaluate language and content; Activity design and refinement; Teach and touch students' hearts) was developed, focusing on school-based factors. Teams of volunteer teachers, project supervisors, and school teachers (hereafter, GREATCLIL team) carried out school-based mini projects that involved the design and construction of SBC-based CLIL summer programmes. To shed light on the potential role of school-based CLIL as a motivating factor for English language learning, a longitudinal study was conducted of five-day CLIL camps for primary and secondary school students (Y1-Y12) involving a total of 3,932 student campers and 107 camps, held in Taiwan between 2015 and 2018.

Participants were campers from remote and rural schools, who tend to experience relatively less pressure regarding English study and also demonstrate comparatively lower English proficiency and learning motivation as compared to urban students. In addition to demonstrating lower learning motivation and English proficiency, Taiwanese remote learners are frequently linguistically heterogeneous, speaking Taiwanese, aboriginal languages, Hakka, and new immigrant languages like Vietnamese or Indonesian. Given the noted gaps in English proficiency and motivation among these student campers and the potential influence of school-based CLIL summer programs on students' motivation, the corresponding mechanisms of culture, environment, content, and language were built into the development and implementation of a GREAT-Cycle instructional design.

Literature Review

Content and Language Factors

Phil Ball (2009) regards CLIL as an approach for integrating linguistic and content factors particularly appropriate for language pedagogies focused on thematic or content-based instruction. CLIL can also be viewed as a platform for encouraging and providing opportunities for language and content teachers to exchange teaching practices. CLIL teachers approach language from a different angle as compared to traditional teacher-centred language teachers, who typically focus on teaching the four skills of English as a subject rather than as a tool, and emphasise grammar and drills in order to prepare students for tests (Lasagabaster, 2014). CLIL language is based on the specific discourse of a subject and is not simply lexical. Steve Darn (2006) suggests that

CLIL provides students with the necessary subject-specific tools (including vocabulary) and access to diverse content from different perspectives. According to Darn (2006), David Lasagabaster and Aintzane Doiz (2016), and Jon Merino and David Lasagabaster (2018), CLIL improves overall target language competence and raises awareness of both the mother language and the target language in the subjects taught.

Do Coyle et al. (2010), in an attempt to codify language learning principles, state that CLIL pulls together the threads of existing approaches, such as content-based instruction and language-supported subject learning, as well as immersion and bilingual/ plurilingual education. Its typical context is classrooms where subjects are taught in English by non-native English-speaking content teachers. The aforementioned terms suggest a strong relationship between language learning and subject matter content. This default type of dual purpose for the teaching of content and language at the same time, involving non-native English-speaking content teachers utilizing a more immersive approach, is classified as “strong” or “hard” CLIL (Ball, 2009; Bentley, 2010), with some promising research outcomes reported in those settings (Dalton-Puffer, 2011; Pérez-Cañado, 2012). Ball (2009) identifies five types of CLIL programmes on the “strong/hard” versus “weak/soft” continuum: a) total immersion, b) partial immersion, c) subject/content area classes (reading, language arts, math, science, and social studies), d) language classes based on thematic units, and e) language classes with greater use of content than evidenced in typical language acquisition-based courses. Thus, relatively “harder” forms of CLIL are entirely in the target language, while “softer” forms of CLIL simply have a stronger emphasis on academic or subject-related content than typical EFL courses.

For Darn (2006), CLIL is dependent on the fact that linguistic knowledge becomes the means by which other content is learned, with language being fundamental across curricula, and language acquisition principles being central to both learning motivation and the contextualized nature of language and content. According to Heini-Marja Järvinen (2006), CLIL-type provision has been defined as consisting of a minimum of 20 percent of a class taught in the target language, with instances of classes taught in the target language for less than 20 percent of the time virtually non-existent in terms of CLIL interventions.

Maria Luisa Pérez-Cañado (2012) postulates that a simple ratio of each language used in teaching is a useful quantitative measure for evaluating language use in CLIL-type interventions. However, the danger in using such a ratio is that the role of language in immersion programmes tends to be defined by quantity rather than quality. In fact, CLIL operates, to one degree or another, qualitatively in the language learner’s experience. Regardless of

the perspective, quantitative or qualitative, adopted for assessing the balance between an emphasis on language and content during instruction, these two constructional mechanisms are fundamental to the implementation of CLIL when considering student motivation.

Environmental Factors

Stephen Krashen's (1985) language acquisition hypotheses, in particular the Input Hypothesis, state that a rich and understandable language environment (comprehensible input) is the only prerequisite for language acquisition. In regard to CLIL pedagogy, Kay Bentley (2010) and Liz Dale and Rosie Tanner (2012) propose different approaches to language learning depending on the relative emphasis placed on content knowledge and linguistic knowledge. Bentley (2010) differentiates language-led, subject-led (modular), and subject-led (partial immersion) CLIL approaches in terms of target language use time during class, with modular approaches similar to the notion of "soft CLIL." Subject-led (partial immersion) approaches are closer in definition to those of early immersion programmes described by Wallace Lambert and Richard Tucker (1972) and Merrill Swain and Sharon Lapkin (1982) in which immersion starts with 100 percent use of the target language, which is gradually replaced by the mother language until the ratio is approximately 50/50. Bentley (2010) considers strong/hard CLIL as the outcome of a series of trials in which the weekly hours of target language teaching are increased until half of the course is taught in that language. In this manner, the more the subject is emphasised, the stronger the CLIL programme.

Dale and Tanner (2012) further ponder the differences between strong/hard and weak/soft CLIL in terms of both instruction and the means for practising CLIL, where subject lessons are taught by either subject teachers or language teachers. They suggest that CLIL teachers and learners require knowledge of the language related to curricular subjects. This can enable learners to understand the subject and communicate ideas, while requiring less formal language use in subjects for which the purpose is everyday communication. Makoto Ikeda (2013) provides a continuum of CLIL approaches (see Figure 8.1) comparing Ball (2009), Bentley (2010), and Dale and Tanner (2012) in terms of content and language use. Considerations of content and language balance also relate to the type of environment in which CLIL is taught, ranging from immersive to thematic, or from language teacher-led to content teacher-led. It is certain that "engaging with and learning cognitively challenging content through another language requires a depth of processing which cannot be attained when the teacher is simply in transmission mode" (Coyle et al., 2010, p. 88).

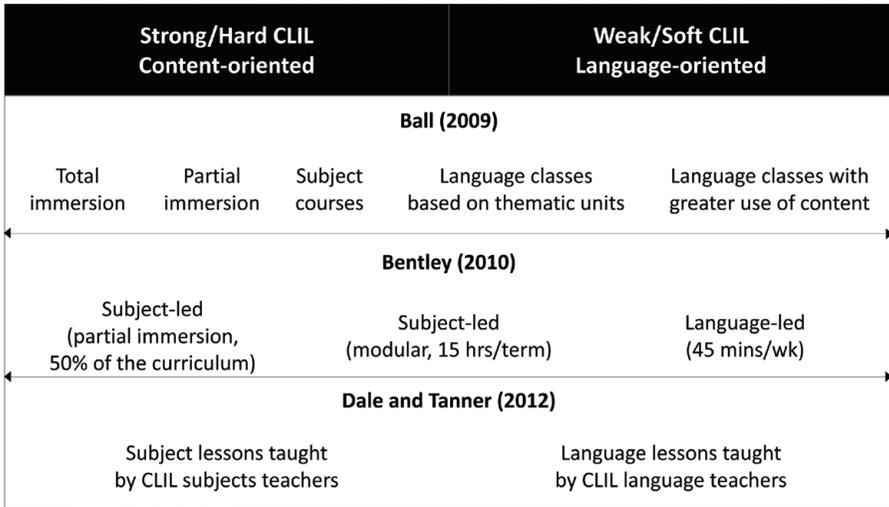


Figure 8.1. CLIL Continuum comparison (Ikeda, 2013, p. 32).

Most scholars agree that language experts are likely to excel in “weak/soft” CLIL, where the goal is the acquisition of language for general discourse and communicative competence, while a strong content background is likely necessary for “strong/hard” CLIL, where learners are expected to gain content knowledge necessary for domain-specific communication. In terms of the balance of content and language learning objectives, Teresa Ting (2011) considers that if a 50:50 content: language ratio is applied to CLIL classes, teachers must consider “whose language does the ‘50/language’ refer to?” (pp. 314-315). In other words, for the 50 percent of learning objectives that are linguistic in nature, one must consider “whose” language is being taught: that of the teacher or learner, of the target language or the mother language. The answer Ting (2011) offers is that the language portion of the CLIL lesson must refer to the target language (such as English) which is, most importantly, familiar or known to the learners; otherwise, input will not be comprehensible (Krashen, 1985). Students will not be motivated if the content and language are incomprehensible. If educators lack the awareness of these differences in the learning environment, it may lead to unsatisfactory learning results in both content and language and a backlash against CLIL.

Cultural Factors

Underpinned by the critical analysis by Cenoz et al. (2014) and by Dallinger et al. (2016), CLIL implementation can be found extensively in Europe, but to a lesser extent in North and South America, Australia, Asia, or Africa,

primarily due to a lack of suitable materials. Dario Banegas (2014) found that advertised CLIL-oriented EFL coursebooks have “(1) little correlation between featured subject specific content and school curricula in L1 (non-English), (2) oversimplification of contents and (3) dominance of reading skills development and lower-order thinking tasks” (p. 345). Ball et al. (2015) consider that many materials have no consideration of language or culture support because they are not produced for EFL learners. McDonough et al. (2013) suggest materials should be developed within a framework which considers context (learners and setting), goals, and the syllabus. Following a cognitivist paradigm, materials should be developed in a way that presents learners with a sequence that evolves in complexity and scope to promote both language and, above all, cognitive development (Banegas, 2014). This concern echoes Esther Bosompem (2014), who declares that teacher-developed CLIL materials, rather than published coursebooks, may be more suitable for learners and their contextual needs.

A review of the literature was conducted in order to develop theoretical and practical foundations for the development of the instructional model (GREATCLIL) and the instructional intervention discussed in this chapter. The findings, based on the efficacy of the instructional model, are reported in order to offer recommendations to assist school administrators and teachers in implementing SBC-based CLIL principles and processes. A framework that helps volunteer teachers to design integrative CLIL camp curricula will also be presented and evaluated.

Research Methods

Participants and Setting

Over four years, 605 volunteer student teachers, including those with ambitions to become full-time teachers in the future or with a motivation to use their expertise to provide education in remote areas, were recruited from Taiwanese colleges to serve a total number of 107 remote schools and 3,932 campers (see Table 8.1). The volunteers were required to form teams of six to twelve individuals (with at least half of them being English majors) and submit their service plans for evaluation and selection. All teams prepared a five to ten-minute film in English to demonstrate their service motivation, their expertise, and their verbal English proficiency. Selected teams were assigned project supervisors ($N = 115$) who were highly respected teachers from Taiwanese primary and secondary schools and who were responsible for supervising the volunteers' camp curriculum designs.

Table 8.1. GREATCLIL participation data

Years	Schools	Volunteers	Student Campers	Project Supervisors
2015	19	134	739	24
2016	29	160	1,113	32
2017	30	167	1,083	30
2018	29	144	997	29
Total	107	605	3,932	115

Development of the GREAT-Cycle Framework

Once the CLIL team (volunteer and supervisor groups) was established, the next step was to agree on a framework for the camp project: **G**et to know the school; **R**esearch and background assessment; **E**valuate language and content; **A**ctivity design and refinement; **T**each and touch students’ hearts (see Figure 8.2).

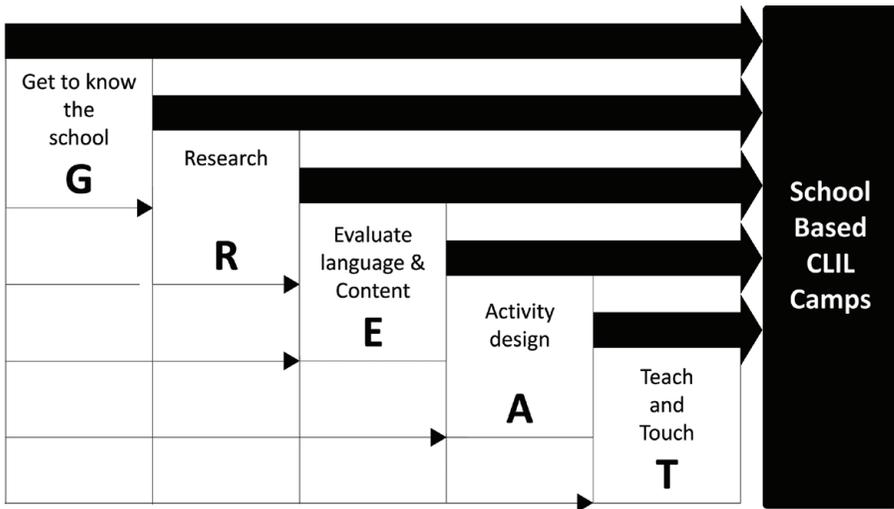


Figure 8.2. Five-stage GREAT-Cycle framework.

The volunteers and their supervisors first visited the school to evaluate students’ language levels and understand their SBC before designing their GREATCLIL camps (**G**; Get to know the school). The Taiwanese MOE suggests 19 educational issues for grade schools to develop their SBC: gender equality, human rights, environmental education, ocean education, character education, life education, legal education, technology education, information science education, energy education, safety education, disaster prevention

education, career and life planning education, literacy education, outdoor education, multi-cultural education, international education, and aboriginal education. A school-based curriculum approach was adopted, based on Jerome Rotgans and Henk Schmidt's (2011) suggestion that situational interest developed over time is related to academic achievement in an active-learning classroom. The proposed SBC in Chinese was situationally analysed by the volunteers and supervisors who were required to understand that SBC differs depending on local conditions. It is during this stage of doing research (**R**) that elements of SBC (environmental and cultural factors) were integrated with the GREATCLIL camp design (content and language factors).

It is noteworthy that the GREATCLIL framework was based on English language and content learning in conjunction with SBC (**E**; Evaluate language and content). As mentioned earlier, campers' overall English proficiency was relatively low and, in order to ensure comprehensible input for active learning, the English: Chinese ratio for GREATCLIL camps was set at approximately 30:70 to 40:60, which met the minimal requirements Pérez-Cañado (2012) suggests for interventions. In order to gain insight regarding the school-based curriculum, each participating school's English teachers and their school staff ($N = 240$) were invited to practise the five-stage GREAT-Cycle framework in collaboration with the volunteers since they knew more about the schools' SBC. The GREATCLIL camp activities were designed to scaffold language and content knowledge acquisition (**E**; Evaluate language and content & **A**; Activity design). Overall, the four-year GREATCLIL camp curricula could be viewed as a continuum of practices, depending on who was involved and whether they were "selecting," "adapting," or "creating" SBC objectives to meet local contexts. The language, instructional content, and activities included in the GREATCLIL camps were designed to increase campers' motivation and confidence to learn the school-based curriculum content through English with ease and to foster motivation towards English in the future (**T**; Teach and touch).

Content, Language, Environment, and Culture Considerations

The GREATCLIL camp curricula focused on the SBC (mainly from the MOE's 19 educational issues), language, environment, local and international culture, English language learning, indoor and outdoor instructional activities, and scaffolding for promoting successful learning. Major school-based factors, including the sociolinguistic environment, language gaps, the amount of exposure to GREATCLIL camps, the neighbourhood environment, and the local culture around the school or community, were taken into account by the GREATCLIL framework (see Figure 8.3).

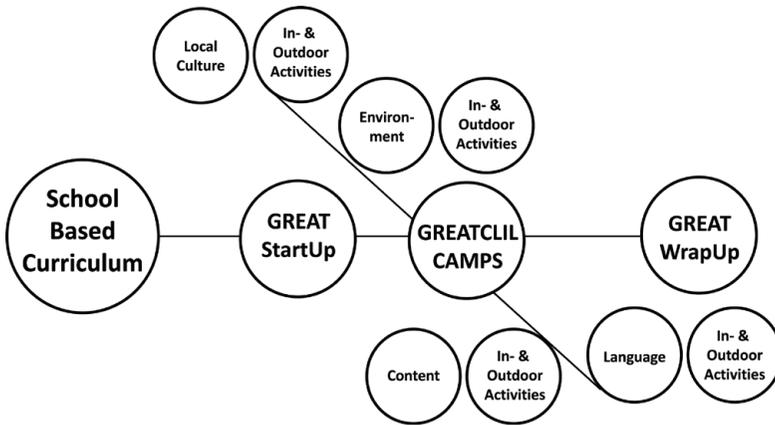


Figure 8.3. GREATCLIL camp curriculum model.

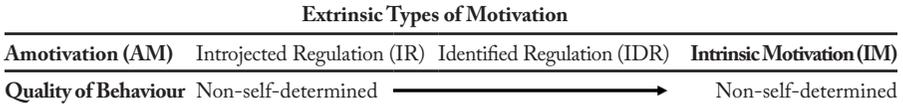
This model helped the GREATCLIL team select and design materials to enhance campers' learning autonomy, competence, and relatedness (positive motivational factors). This was critical, since participants needed to visualize how, in terms of content and language, CLIL was presented appropriately for all campers in terms of environment and culture. For the GREATCLIL team, successful camps required a great amount of outdoor and indoor group/team work and cooperative learning using activities such as creative or scientific brainstorms, jigsaw tasks, scavenger hunts, board games, or competitive events. As such, GREATCLIL activities contributed to aspects of team building related to bonding, teamwork, and positive group dynamics. Participants moved progressively through a unit, leading to a group research or presentation task. Group work was organised to ensure that all campers had a role to play, and they were expected to participate in order to increase their learning motivation.

Evaluation of Motivational Factors (Self-Determination Theory)

Motivational psychologists contend that focal issues (i.e., in this case, the content being taught in CLIL courses) should be personally meaningful to students and related to their cultural experiences, goals, and interests. This perspective is consistent with the stance of Jeffrey Albrecht and Stuart Karabenick's (2018) that, in order to make courses relevant, educators must first consider focal issues through which curricula and instructional procedures can be personalised to be relevant and meaningful to students. For the study highlighted in this chapter, it was necessary to examine the difference in campers' learning motivation between GREATCLIL camps (informal CLIL

classes [IF]) and regular English classes (formal non-CLIL classes [F]) in Taiwanese remote areas. These data were collected and analysed by means of a learning motivation questionnaire based on Richard Ryan and Edward Deci's (2000) self-determination theory (SDT). SDT addresses three universal, innate, and psychological needs: competence, autonomy, and psychological relatedness (see Table 8.2).

Table 8.2. Elements of the self-determination theory model



The focus of SDT is on the introjected regulation (IR) and identified regulation (IDR) aspects of extrinsic motivation, as well as on amotivation (lack of motivation [AM]) and intrinsic motivation (IM). The placement of intrinsic motivation on the far right is not intended to suggest that extrinsic motivation can shift to intrinsic motivation, as this depends on the intrinsic interest of the activity to the individual. SDT not only distinguishes between motivation and amotivation, but also describes the quality of motivation on a continuum which ranges from a high level of self-determination with a high degree of intrinsic motivation to act, to a low level of self-determination with a high degree of external determination and extrinsic behavioural motivation. Reliability and validity tests on 1) amotivation, 2) intrinsic motivation, 3) extrinsic motivation: introjected regulation (internalized reward-seeking and punishment-avoidance), and 4) extrinsic motivation: identified regulation (self-recognition of the value of a behaviour towards one's development) were run separately for both formal and GREATCLIL classes. The questionnaire was found to be reliable, with Cronbach's α ranging from .722 to .897 (see Table 8.3).

Table 8.3. Cronbach's alpha for the research questionnaire items

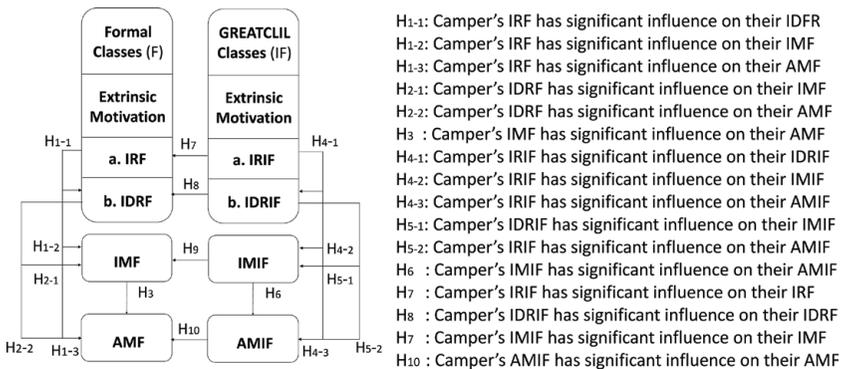
Formal Classes (F)				
Domains	Types	Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items N of Items
Amotivation		01, 02, 18	.871	.872
Extrinsic Motivation	IR	05, 09, 16, 04, 07, 13, 08, 10	.778	.773
	IDR	15, 17, 20, 12	.898	.897
Intrinsic Motivation		03, 06, 19, 11, 14	.880	.886

Table 8.2. Elements of the self-determination theory model (continued)

GREATCLIL Camp Classes (informal classes, IF)				
Domains	Types	Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items N of Items
Amotivation		22, 27, 35	.861	.871
Extrinsic Motivation	IR	23, 28, 31, 34, 36, 25, 21, 32	.747	.722
	IDR	37, 38, 40, 33	.831	.835
Intrinsic Motivation		24, 26, 29, 30, 39	.845	.844

All 40 questions (20/20 for formal/informal classes) included a five-point response format that ranged from “very strongly disagree” (scored 1) to “very strongly agree” (scored 5). The concurrent summer camps lasted five days with an average of 30 students (one class) to 60 students (separated into two classes) per school. The pre- and post-test questionnaires were delivered before and after the camps (please see the appendix). It was hypothesised that campers would improve their learning motivation towards English in their formal classes (F) following informal GREATCLIL camp (IF) learning experiences. For both F and IF groups, it was expected that all motivational factors would be significantly influenced by the GREATCIL intervention. It was also assumed that with an increase in extrinsic and intrinsic motivation, amotivation would decrease.

Therefore, it was hypothesised that a significant motivational difference would result following a five-day GREATCLIL camp (see Figure 8.4). Motivation correlations were calculated using Pearson’s product-moment correlation coefficient, and significance levels were set at the .05 level. Motivational differences between formal and informal classes were examined using paired *t* tests, and significance levels were set at the .05 (*, 2-tailed) and .01 (**, 2-tailed) level.



- H1-1: Camper’s IRF has significant influence on their IDRF
- H1-2: Camper’s IRF has significant influence on their IMF
- H1-3: Camper’s IRF has significant influence on their AMF
- H2-1: Camper’s IDRF has significant influence on their IMF
- H2-2: Camper’s IDRF has significant influence on their AMF
- H3 : Camper’s IMF has significant influence on their AMF
- H4-1: Camper’s IRIF has significant influence on their IDRIF
- H4-2: Camper’s IRIF has significant influence on their IMIF
- H4-3: Camper’s IRIF has significant influence on their AMIF
- H5-1: Camper’s IDRIF has significant influence on their IMIF
- H5-2: Camper’s IRIF has significant influence on their AMIF
- H6 : Camper’s IMIF has significant influence on their AMIF
- H7 : Camper’s IRIF has significant influence on their IRF
- H8 : Camper’s IDRIF has significant influence on their IDRF
- H7 : Camper’s IMIF has significant influence on their IMF
- H10 : Camper’s AMIF has significant influence on their AMF

Figure 8.4. Research hypotheses.

Findings

From the pre- and post-tests data of H1-H6 in Figure 8.5, neither campers' identified regulation (IDRF) nor intrinsic motivation (IMF) measured in the IF condition had a significant correlation with their amotivation for formal English classes. Also, the correlation between campers' identified regulation (IDRF) and intrinsic motivation (IMF) was insignificant for the post-test for formal classes. This might be due to the fact that students who are amotivated in certain subjects often demonstrate an unwillingness to act or demonstrate counter-productive behaviour.

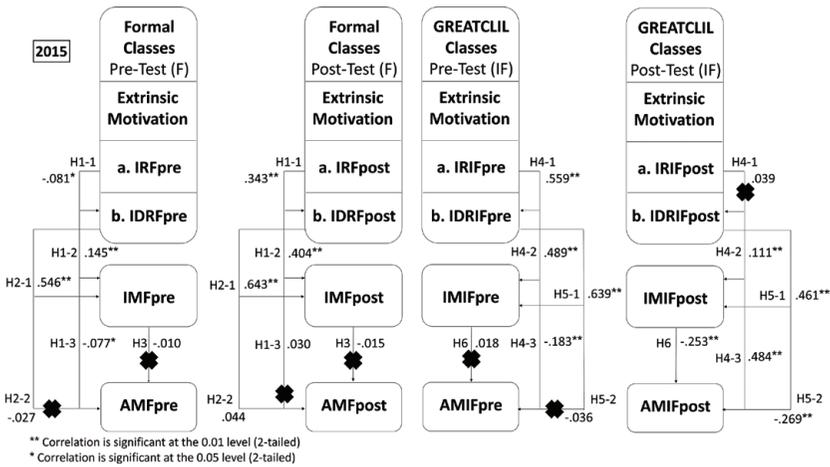


Figure 8.5a. Correlations for learning motivation, 2015

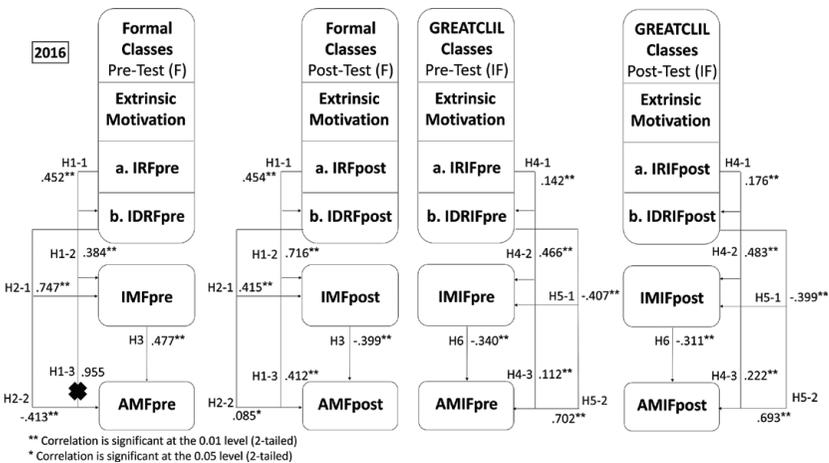


Figure 8.5b. Correlations for learning motivation, 2016

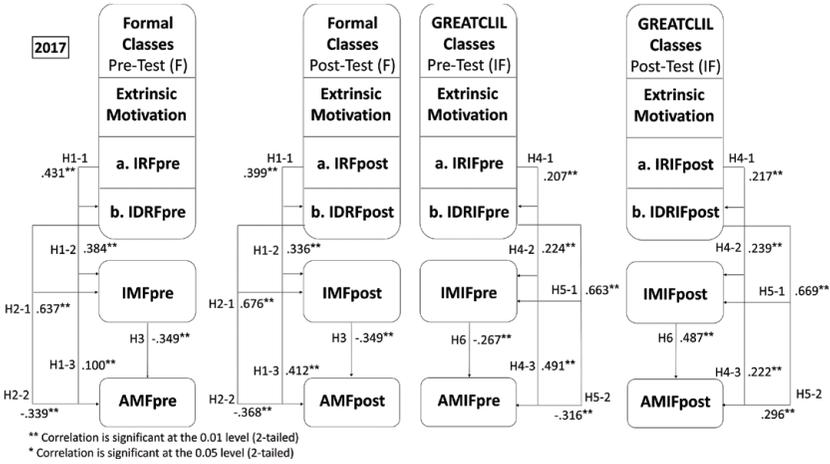


Figure 8.5c. Correlations for learning motivation, 2015

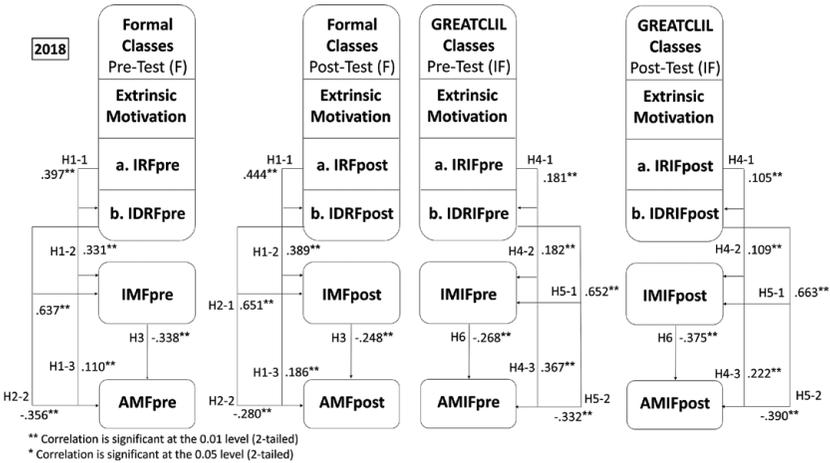


Figure 8.5d. Correlations for learning motivation, 2018

The relative lack of significance of the results could stem from primary and secondary students having a lack of motivation and poor attitude towards English learning in formal classes, which influenced their reported motivation during English summer camps. Similar pre-test results were observed for GREATCLIL classes. Yet, the opposite result was revealed for the post-tests. For the first year of the study, all hypothesised correlations in the model demonstrated statistical significance, supporting the presence of the expected relationships among English learning motivation factors for the 739 participants. It seems that GREATCLIL did impact participants' learn-

ing motivation, with negative correlations on the post-test between identified regulation and amotivation (H_{5-1}) and intrinsic and amotivation (H_6), confirming that their amotivation decreased as their extrinsic or intrinsic motivation increased.

The year 2015 was the first time campers attended a GREATCLIL summer camp. Behavioural routines like morning dance, camp yields, and team cheers were regularly repeated, creating an established pattern that brought a sense of continuity. Participants identified and recognised that a behaviour was beneficial toward their camp activities and learning development, and would adopt those learning behaviours as their own. These behaviours were not required but, rather, were performed willingly as part of their camp experience. Establishing campers' identified regulation is important for changing learning behaviours and increased interest or the need to succeed. While increased IR was a positive result, the ultimate outcome was a decrease of amotivation and an increase in intrinsic motivation. As a learner-centred approach, CLIL is an active learning method wherein teachers act as facilitators and the responsibility for engagement and reflection is placed upon learners. Therefore, from 2016 on, when the GREATCLIL teams visited schools, students' opinions on issues affecting the local context were elicited, which allowed for better future preparation for the stages of G,R,E, and A to meet students' learning needs, including environmental and cultural factors. Participants' motivational factors demonstrated significant inter-correlations from the 2016 data except for introjected regulation and amotivation on the pre-tests for both formal and informal classes (H_{1-3} & H_{4-3}).

When students worked together to learn and expand their GREATCLIL knowledge in 2017, they were more likely to become invested and motivated to complete camp tasks and activities. While intrinsic motivation focuses on building upon students' inner feelings, sometimes students require external reinforcement to increase their enthusiasm towards GREATCLIL. According to Deci and Ryan (2002), introjected regulation inspires learners to engage in behaviours not because they want to, but because they fear not to, out of a sense of external obligation. Since GREATCLIL camps provided team members with an agreed mission that provided a framework for all team efforts, they experienced a deep commitment to group decisions and actions. This sense of belonging was enhanced and reinforced when the team spent time developing team norms or relationships which had previously been activated in formal classes; thus, a difference was found not only for GREATCLIL camp experiences but also in formal English classes. For every year other than 2016, the results of correlation analysis

for intrinsic and amotivation factors were very similar, although subjects' introjected regulation or identified regulation did not always significantly correlate with their amotivation on the pre- and post-tests.

Apart from 2015, after GREATCLIL camps, participants' extrinsic motivation was not significantly correlated with amotivation, but was significantly correlated with intrinsic motivation. That is, external incentives did not decrease their amotivation. Also, from the first year on, participants' intrinsic motivation and amotivation were significantly correlated on post-tests. Noticeable motivational differences between pre-tests and post-tests were also observed for all years. These motivational differences contribute to the literature by providing empirical support for the motivational potential of CLIL-integrated English summer camps. The correlational results among motivations for all years echo Deci and Ryan's (2002) self-determination theory, which stresses that externally focused or motivated behaviours could naturally develop into a self-controlled behaviour based on learners' interest in, perceived usefulness of, and competence in that specific behaviour or activity, resulting in autonomous learning. The positive findings in Figure 8.6 most likely result from the fact that learning took place in a relatively anxiety-free environment. From camp observations, students were keen to learn content area knowledge that they were already familiar and confident with, so they favoured content knowledge over language competence. It seems clear that content was almost as important for both learning motivation and language outcomes, confirming the critical role of content-based English language camps, in particular for remote school students.

Conclusions and Implications

In terms of the correlations among motivational factors, the results were consistent over all four years. Participants' overall introjected regulation was significantly correlated with both intrinsic motivation ($p < .01$) and amotivation ($p < .01$), while extrinsic motivation: identified regulation was positively correlated with intrinsic motivation ($p < .01$) and negatively correlated with amotivation ($p < .01$). Compared to motivation in formal classes, participants' affective filter was lowered to a greater extent during GREATCLIL camps, such that their amotivation decreased between the pre-test and post-test ($p < .01$, all years except 2017), while their extrinsic motivation: introjected regulation ($p < .05$, all years except 2016), extrinsic motivation: identified regulation ($p < .05$, all years except 2017), and intrinsic motivation ($p < .01$, all years except 2017) increased over the five-day GREATCLIL camps.

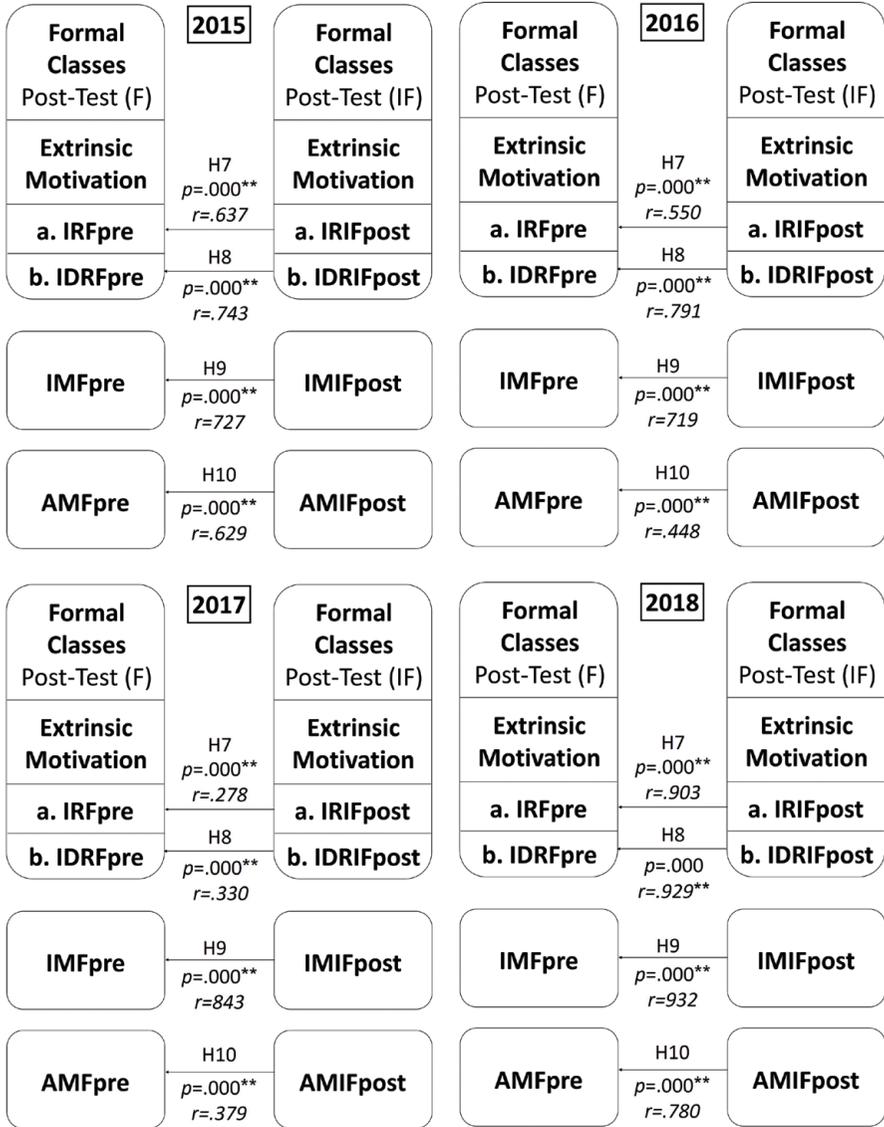


Figure 8.6. Correlations for learning motivation, 2015-2018 (H7-H10)

Intrinsic motivation can be a key to student achievement. However, extrinsic motivation dominates classrooms for the remote area students evaluated in this project. Since the GREATCLIL team were not their regular teachers, these volunteers and the GREATCLIL model also served as external factors. When amotivated, students were unable to generate the energy and concentration needed to participate in and benefit from the activities provided by

their teachers. Rather than setting up reward systems, the GREATCLIL team established a camp culture of discovery and a stress-free environment where everyone was free to try new things. The team needed to validate and build upon campers' identified regulation toward their intrinsic motivation to complete GREATCLIL tasks, not by promising them an external incentive, but by giving them choices to participate freely, without pressure, in all camp activities.

Due to the significant correlations among all variables, it is deemed essential to utilise these variables in order to track and evaluate changes in language attitudes and mastery among GREATCLIL campers over time in a more systematic way and to better evaluate the relationships among motivation types over time. Further explanation of these correlations among motivation factors for both formal and informal classes will allow researchers and educational authorities in different language learning contexts to develop future language policies based on a coherent and consolidated theoretical framework. The initial success in GREATCLIL coordination not only calls for external support and incentives, but also for internal resources, agreement on teaching loads, time to experiment, and relationship and team building. Likewise, the methodological and pedagogical innovations associated with CLIL and the change in teaching patterns raises team issues of control, personality clashes, and resistance to advice.

Many of the camp activities the volunteers designed for GREATCLIL camps were, in fact, of intrinsic interest to at least some campers, based on the culture, environment, and SBC factors evaluated before the camps. One effect of presenting these activities within a system of extrinsic incentives is to challenge the intrinsic interest in these activities or tasks for those campers who were familiar with them and had some initial interest. A central problem with our educational system is its inability to preserve an intrinsic interest in learning and the eagerness for exploration that students innately possess. Applying SBC with specific GREATCLIL mechanisms is recommended as a suitable design for integrative CLIL for future school projects. Elevated need satisfaction and reversal of need frustration were the antidotes to amotivation, which provided rather compelling support for the self-determination theory underlying the GREAT-Cycle process.

The sensitivity of the GREATCLIL intervention to students' home cultures was an important element of the instructional design adopted in this research. Recognising this, GREAT-Cycle could help educators (1) increase their students' comfort, competence, confidence, and relatedness need-satisfaction and (2) mitigate the frustration faced by developing opportunities to foster students' competence, confidence, and relatedness towards the school-based curriculum. The findings of this study have revealed that extrinsic and

intrinsic motivations, effort, valence, expectancy, and self-estimation of ability were internally related determinants of drive for learning English across the curriculum. The noted decrease in amotivation likely resulted from a decrease in students' affective filter and an increased willingness to engage in both English language and content-area learning. The increases in both intrinsic and extrinsic motivation demonstrate that the use of CLIL as a strategy for learning is both inherently interesting to learners, while also contributing to their appreciation of the role of learning content and English as a means of gaining comfort as well as engaging in self-improvement and development.

This study was designed to evaluate the efficacy of the GREATCLIL camp model, a novel approach that integrates a variety of cultural, environmental, and school-based contexts, and significantly increased participants' learning motivation, demonstrating both the need and value of English language learning. From this perspective, a school-based GREATCLIL curriculum focusing on 19 educational issues can be viewed as autonomy-supportive content teaching which enriches the motivational aspects of students' functioning via need satisfaction. Anti-autonomy-supportive CLIL teaching may exacerbate the amotivational side of students' functioning via need frustration, while teacher neglect or indifference towards these processes may mute other motivational processes and create a new additional amotivational process, depriving the learner of need satisfaction. This chapter concludes that the twin antidotes of the school-based curricula and GREATCLIL camps described here worked towards decreasing amotivation, boosted learning need satisfaction, and reduced need frustration. As such, it is recommended that similar interventions could be profitable for future research in order to test the utility of expanding the GREAT-Cycle model design principles described in this chapter for regular or informal English classes.

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Appendix: Pre- and Post Tests: Motivation in Learning English in Formal English Classes and GREATCLIL Camps

The pre- and post-test surveys are available in English and Mandarin on the book's website at <https://wac.colostate.edu/books/international/eac2018>.