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ABSTRACT

This paper examines the content-language integrated (CLI) second language (L2) education offered by the CCUEI Research Collaborative in China. It explores how CCUEI-developed curriculum reflects the theoretical foundations of an immersion experiment and how the research-based theoretical foundations of CLI L2 have been applied in practice. It presents best practices for L2 instruction that have emerged supporting the notions that content-area classes provide natural environments for L2 education and content-based language teaching motivates English language learners.

INTRODUCTION

Since 1997, the China, Canada, United States English Immersion (CCUEI) Research Collaborative has led a content-language integrated (CLI) second language (L2) education effort in the People’s Republic of China. CCUEI is a partial immersion program—based on the Canadian French Immersion model—that employs CLI learning (Coyle, Hood, & Marsh, 2010; Qiang & Siegel, 2011).

The Teachers

In the late 1990s, CCUEI recruited university-prepared Chinese L2 English teachers to work on site in Xi’an schools with a team of Canadian and Chinese educators and researchers to develop an English immersion program beginning at the kindergarten level and adding a grade level each year (Qiang et al., 2011). By 2011, CCUEI teachers were present in more than fifty kindergarten, elementary, and secondary schools in various regions of China—reaching approximately
30,000 students. These teachers, some of whom are also content specialists, use CLI strategies and CCUEI-developed curriculum for instruction in science, moral education, social studies, physical education, music, and visual arts. They work in a regional community of practice across schools, grade levels, and content areas. A regional supervisor coordinates monthly professional development meetings, which are rotated among the participating schools.

The Curriculum

The curriculum for the CCUEI program is based on five assumptions: (1) young children acquire language easily and enjoy the experience; (2) language should be learned in an interactive way; (3) the teaching of different subject areas should be integrative; (4) language learning should be about everyday life; and (5) children should enjoy the experience (Siegel, 2000). Moreover, the curriculum closely reflects China’s national curriculum content guidelines (Huang et al., 2011).

CCUEI’s goal is to teach academic content through English language immersion practices. Like other programs based on the French Canadian model, CCUEI features two defining characteristics: (1) instruction delivered in English and (2) English taught at the appropriate ability level of the English language learners (ELLs) in the classroom (Clark, 2009).

The curriculum addressed in this paper was developed between 2005 and 2011 by nine CCUEI educators comprising L2 English teachers from China, native-English speakers from Canada and the United States, and content specialists and advisors knowledgeable in Chinese academic content area standards. A systematic, collaborative process of curriculum development involved researching, writing, piloting, reviewing, collaborating, and making decisions about the curriculum. Writing team members gathered information from formal presentations; model lessons; and informal interviews about existing English immersion curricula, theories of education, and best practices in CLI L2 education. The four linguistic skills of listening, speaking, reading and writing were incorporated throughout the curriculum. A well-defined sequential framework highlighting specific content, pedagogy, and assessment for CCUEI classrooms was also developed. A comprehensive approach to the curriculum was followed, as noted by one of the writers:

Immersion curriculum is not simply materials used by teachers and students to teach and learn a foreign language but a systemic and integrated resource of subject and linguistic knowledge, arranged and presented in a highly technical and professional way.

Instructional Strategies and Assessment

Integrated content-based thematic lessons were taught in English and focused systematically on comprehensible input and output (Krashen & Terrell, 1998; Pica, Young, & Doughty, 1987; Rea & Mercuri, 2006; Swain, 1985). The readings
and activities integrated receptive and productive language and skills, stressed functional and communicative language authentic to the content by approaching language lexically, and incorporated texts and technology for reading, listening, viewing, and/or interacting. Formative assessments, which ranged from informal observations to formal end-of-lesson tests, enabled teachers to give students feedback and to rethink their own instructional strategies and activities to improve students' understanding and performance.

**METHODOLOGY**

To measure the efficacy of the CCUEI program, the following research questions were developed:

1. How does the CCUEI curriculum reflect theoretical foundations of the immersion experiment?
2. How is theory-to-practice revealed in the instructional performance of CCUEI classroom teachers implementing English immersion curriculum?

The study was based on a constructivist perspective on research with an effort to follow principles of thoroughness. Following the work of Marshall & Rossmen (2006), the researcher used an interpretive inquiry approach to reflect on the roles of the participants.

**Data Sources**

To address the first question, the researcher gathered data from semi-structured interviews and anecdotal records from the CCUEI curriculum developers who participated in writing team meetings. The researcher used a combination of convenience and purpose sampling with the main criteria based on strata of profession and professional experience and years in CCUEI curriculum development.

To address the second question, the researcher compiled checklists and field notes, which were completed during on-site observations of CCUEI teachers from 2007 until 2009, using the English Immersion-Teacher Evaluation and Feedback Form (EI-TEFF). A video recorder and/or camera were used to record a portion of teachers’ lessons. A convenience sample and a stratified sample were comprised of sixteen teachers, with a wide range of experiences, from eight schools—representing the kindergarten, elementary, and secondary levels—located in different regions.

**Instruments**

To address the first research question, the researcher recorded anecdotal notes from a semi-structured interview with the nine curriculum developers. The interviewer used the following prompts to gather information:

- Tell me about the English language teaching curriculum used in your school.
• Have you observed teachers using the CCUEI curriculum? If so, what were your impressions?
• Tell me about feedback from teachers about the CCUEI curriculum.
• Which aspects of the curriculum support successful English immersion teaching?

The semi-structured interview followed a process that allowed participants to reflect on and make sense of their experiences (Seidman, 1998).

To address the second research question, the researcher observed the sixteen teachers conducting English immersion lessons in various content areas; the teachers were selected by their school administrators and CCUEI supervisors. The observation data were recorded on an English Immersion–Teacher Evaluation and Feedback Form (EI-TEFF). The researcher completed an EI-TEFF checklist and field notes at the time of each classroom observation (Creswell, 2007). Videos and photographs of the classroom instruction provided the researcher with additional documentation on the teachers’ abilities. The researcher also collected feedback from peer-teachers, mentor teachers, a CCUEI supervisor, and a school administrator in interviews.

**Data Analysis**

To address the two research questions, the researcher analyzed the interviews and field notes and wrote analytical memos (Corbin & Strauss, 2008) that reflected on the data and research process. The researcher used Microsoft Word to manage the notes and memos and code emerging themes (Creswell, 2007). She entered quantitative data from the EI-TEFF indicators for instruction into an Excel spreadsheet and compared these with the field notes to identify emerging themes.

**FINDINGS**

This section presents the study results in the context of published literature on the theoretical foundations of the CCUEI curriculum.

Qiang and Zhao (2001) studied the early work of the CCUEI Research Collaborative and provided a research base for developing the CCUEI curriculum on sociolinguistic foundations. They found that young L2 English language learners successfully acquire English as their second language in a natural environment that integrates L2 learning and content knowledge for meaningful communicative purposes. They further suggested that “the forms and functions of a language change when it is used in different contexts, thus integrating content and language learning provides rich opportunities for students to practice use of the second language” (p. 2). Based on the results of this research, the CCUEI curriculum was designed to leverage the use of content-area classes as natural environments for L2 acquisition, subject-based content knowledge to motivate students, CLI and content knowledge as communication tools, and content and language learning as opportunities for L2 practice.
Four themes from the semi-structured interviews align with Qiang and Zhao’s findings. As the following information indicates, the nine curriculum writers and the sixteen teachers in this study understood these goals.

**Content-Area Classes as a Natural Environment for L2 Education**

The CCUEI teachers followed principles outlined by Siegel (2000) that suggest classrooms are the most natural environments in which students can interact using English. In a feedback session with the researcher, a CCUEI curriculum developer emphasized the need for students to practice English language use in personally meaningful ways. The teacher stated, “When classroom communication occurs around themes and topics of interest to students, there are purposeful and motivational aspects for learning communicative functions of English.”

Analysis of the field notes from the CCUEI classes shows that teachers incorporated essential content relevant to the students’ lives and developmental levels. For instance, a secondary school teacher encouraged her students to grapple with issues such as water conservation and protection of natural resources. This teacher noted, “I involve students in interviews of relevant and timely issues of national and international importance.” During the lesson, the students viewed an English-language news video about relief efforts after a natural disaster. In a follow-up interview, students used complex English and critical-thinking skills to provide facts from science, social studies, and moral education pertaining to the story.

In a primary-level class, students identified their immediate family members and the role each one plays to support the family. Students drew, cut out, and manipulated paper representations of family members. The teacher noted how this activity encourages students to use English in a natural interview. The teacher said, “Students are able to talk about their mothers and fathers. Students talk about [their] mothers’ work at home.” Students listed activities such as cooking, cleaning, reading, and “playing on the Internet,” which prompted further detailed interviews about these activities.

**Subject-Based Content Knowledge to Motivate Students**

Motivation was a frequent element discussed by CCUEI curriculum developers and was a topic of presentations at symposia and conferences. One teacher confirmed that she incorporated entertaining, hands-on, subject-based learning to motivate her students. The teacher observed, “To reach this goal, we play games, have experiments, and enjoy friendly competition.” Motivation was such an essential element that teachers requested that the curriculum writing team incorporate additional engaging activities. This reflects Krashen’s (1982) theories emphasizing techniques that make input comprehensible, such as using visuals and realia and writing down key words and ideas. A third-grade teacher designed materials and a simple experiment to teach the water cycle, noting, “Students can more easily learn words like evaporation and condensation when they see the steam form water droplets on the glass. . . . They are amazed and want to do the
Curriculum developers commented that the teachers should implement hands-on activities that help students construct knowledge. The teachers viewed English language and content knowledge acquisition as active processes that make learning “fun for kids!” This approach follows Piaget’s Cognitive Development theories (Amaral & Garrison, 2002). A CCUEI university curriculum consultant from a Chinese university stressed, “What and how we teach should be interesting enough to satisfy children’s curiosity and close to their everyday life.” A curriculum developer and university L2 English professor in China added that successful immersion education must be presented in a “happy, enjoyable, and relaxing atmosphere.”

A secondary-level teacher said, “My kids love words—they like to read them, they like to write them, they like to talk with foreign teachers to practice their English.” Another added, “We have a television studio in our school. Students learn how to make broadcasts in English.” These students often interviewed the native-English CCUEI team members for later broadcasts.

**CLI and Content Knowledge as Communication Tools**

Curriculum designers suggested strategies to engage students in content and discipline discourse communities to explore and apply authentic and functional language. A CCUEI teacher commented on the importance of English language communication to build students’ self-esteem and the importance of giving them opportunities in the classroom to express their views about learning experiences. By asking students to express their feelings about a topic or activity, the teacher applied Cummins’s (1994) “personal interpretative phase” (p. 50). As students in CCUEI classrooms gained confidence and competence in using academic English language, they were more willing and prepared to engage in critical analysis and use creative processes (Cummins, 1994). The semi-structured interview highlighted the importance of explicitly teaching vocabulary in the content area. One teacher said, “Students used English when talking with desk mates and in small groups. They have a common language. The authentic language serves a purpose. Students understand vocabulary—then they demonstrate for the class with confidence.”

Students often engaged in creative face-to-face interactions. CCUEI teachers reported that play-based explorations lead to creative outputs and uses of humor. The teachers reported that students enjoyed using English in activities more than in recitations or report-outs to the class. Regarding a secondary-school science lesson about magnets, a teacher said, “All aspects of literacy are integrated. Skills in listening, speaking, reading, and writing are used. Students learn key vocabulary words and phrases, make experiments, write down their work, and read their writing to others.”

A semi-structured interview revealed the importance of considering children’s interests in producing works of art and giving them the language tools to
The teacher said, “I often include examples from the masters. Looking at Van Gogh’s Starry Night gives [students] something concrete to talk about—they see color, form, and space in the picture.” Rather than designing a prescriptive curriculum that stresses what to think, the CCUEI art teacher/curriculum writer provided a framework and rich vocabulary for the students to discuss art.

In addition, curriculum developers discussed ways they applied Vygotsky’s theories on students’ use of private speech to increase communicative language, as well as operating in the zone of proximal development (Cummins, 2004). Some teachers directed students to “close [their] eyes [and] think about the words—how do they sound? What words describe (the object)?” When this strategy was paired with adequate wait time, students were more successful with their English. One teacher explained, “I say, ‘Before you signal with your hand, think about your answer,’ and then I count with my fingers to five. Then I signal for students to answer.” These strategies helped students develop oral skills and use English to communicate meaning.

Content and Language Learning as Opportunities for L2 Practice

CCUEI places great emphasis on cooperative learning, with teachers carefully balancing the various student groups by including different ability levels. The observations suggest that cooperative learning was practiced systematically in all CCUEI schools. This approach, which stems from the work of Holt (1993) and Jacobs & McCafferty (2006), improved the students’ self-esteem, understanding of tasks, and skills in working with others. Further, cooperative learning seemed to lead to social cohesion and trust within groups, allowing students to overcome their fears of speaking English in front of others. As students became more confident and trusting, their language output increased, and they practiced more frequently. One teacher remarked, “As student groups communicate and exchange information, participation increases. There are lower levels of inhibition for participation and more possibilities for language.”

Several teachers referred to the influence of Vygotsky and the understanding that learning is a social activity and a tool for constructing meaning. One writer reflected the following:

(The English) language is not only explicitly taught but is also the medium of curriculum instruction. From this point of view, it makes possible for child learners to combine language learning with social situations, thus building up direct links between linguistic symbols and the target objects.

THEORY-TO-PRACTICE IN INSTRUCTIONAL PERFORMANCE

The EI-TEFF was the primary source used to investigate and answer this research question: How is theory-to-practice revealed in the instructional performance of CCUEI classroom teachers? The researcher evaluated the performances
of sixteen CCUEI teachers using indicators from the “instruction” domain of the EI-TEFF.

Teachers were rated as “unsatisfactory,” “basic,” “proficient,” or “outstanding.” At the time of the observations, twelve of the sixteen teachers had five or more years of experience in CCUEI programs; two were new to CCUEI; and two were CLI L2 teachers in a non-member program. The following provides information regarding teachers’ instructional practices by indicator.

Indicator One: Content Goals and Objectives
In terms of content goals and objectives, nine teachers were rated “outstanding,” four were rated “proficient,” and three were rated “basic.” Teachers rated as “outstanding” typically asked students to refer to their student books, stated the lesson goals, and wrote the lesson goals on the chalkboard or projected the goals onto a screen. One asked students to read the lesson objectives out loud; another asked them to give examples from previous lessons. Teachers rated as “proficient” usually only stated the goals and told students that the lesson would build upon previous lessons. Teachers rated as “basic” generally stated only the goals and objectives of the lesson.

Indicator Two: Clear Expectations
In terms of clear expectations, seven teachers were rated “outstanding,” seven were rated “proficient,” and two were rated “basic.” Teachers rated as “outstanding” normally presented students with vocabulary for the lesson; identified how they could use English by listening, speaking, reading, and writing in the content area; and referred to the student book. Teachers rated as “proficient” usually just identified activities and gave examples of how the students could communicate. Teachers rated as “basic” relied primarily on students’ listening and reading skills. Observations suggest that the “outstanding” teachers elicited greater participation from students than those who relied on listening and speaking alone.

Indicator Three: Models Language
In terms of modeling language, four teachers were rated “outstanding,” seven were rated “proficient,” and five were rated “basic.” Teachers rated as “outstanding” and “proficient” had been with the CCUEI program for four or more years at the time of their observations and, as such, were experienced in presenting model lessons and receiving feedback from CCUEI peer-teachers, mentors, and supervisors. Teachers rated as “basic” exhibited less confidence in oral expression and, during the lesson presentation, relied on print materials in lesson delivery. The teachers with more experience in being observed by CCUEI peers, mentors, supervisors, and consultants appeared more confident than those new to the program.

Indicator Four: Modes of Expression
In terms of modes of expressions, eleven teachers were rated “outstanding,”
and five were rated “proficient.” Teachers rated as “outstanding” frequently asked their students to demonstrate certain themes using gestures and body language, paired facial expressions with descriptive words, and used different body positions and tones of voice as they read information or told stories. They also used a type of warm-up activity that involved singing or chanting; nine incorporated gestures in checking for understanding. They variously incorporated language expression while reading stories aloud with their students, told tales or legends, and invited students to role-play. Teachers rated as “proficient” used two to five modes of language expression in their lessons.

Indicator Five: Variety of Activities

In terms of activity variety, all sixteen teachers were rated “outstanding.” In each lesson observed, the activities (small group, cooperative learning, role plays, simulations, dramas, presentations) were extremely varied, including different types of cooperative learning opportunities. Three lessons incorporated technology in student presentations. The majority of teachers engaged students with activities that required responses or interactions in English. Teachers also manipulated real items to teach vocabulary, conduct simple experiments, and illustrate concepts.

Indicator Six: Questioning and Responding

In terms of questioning and responding, six teachers were rated “outstanding,” five were rated “proficient,” and five were rated “basic.” Teachers rated as “outstanding” used questioning and responding methods to teach grade-level content and spark students’ enthusiasm for engaging in higher-order thinking skills and using English. They typically invited students to construct questions for answers they already knew and to pose questions for further study. They also modeled for students how to use a sentence as a prompt for answering in complete sentences and how to build answers using the responses of classmates. Teachers rated as “proficient” asked students only comprehension and application questions. Teachers rated as “basic” asked knowledge- and comprehension-level questions limited to only “yes” or “no” responses. During the feedback sessions, an interesting pattern emerged—the teachers most skilled in using higher-order questioning stated they had been influenced by Bloom’s Taxonomy.

Indicator Seven: Effective Class Time

In terms of effective class time, eleven teachers were rated “outstanding,” four were rated “proficient,” and one was rated “basic.” In all observations, teachers followed lesson cycles with varying class sizes (21 to 70+ students). Teachers rated as “proficient” and “basic” had the largest class sizes. Those rated as “proficient” had students work in cooperative groups. The teacher rated as “basic” had more than 70 students—all of whom were instructed to work independently; this teacher did not adjust for the fact that some students did not have adequate materi-
als to complete the activity.

All the teachers followed a lesson design that paced activities around content, communication, and cognition. The lessons generally featured three to five activities; however, in demonstration teaching events involving more than three lesson presentations, some teachers ran out of time and were unable to summarize their lessons. All teachers with five or more years in CCUEI successfully adjusted the number of activities suggested in the written curriculum within a lesson.

**Indicator Eight: Monitoring Learning**

In terms of monitoring learning, four teachers were rated “outstanding,” three were rated “proficient,” and nine were rated “basic.” Teachers rated as “outstanding” moved about the room frequently, observed students individually and in groups, and provided feedback specific to the lesson. Their students or student groups received feedback that reinforced learning before, during, and following instruction; were involved in “think-pair-share” and peer-teaching/learning; and brought items from home to use in the lessons. These students were given multiple means to demonstrate understanding individually or in groups, and peers were encouraged to provide feedback to one another. Teachers rated as “proficient” also moved about the room but provided encouraging remarks rather than specific feedback. They involved students in group performance and/or competitive games to check understanding. Teachers rated as “basic” did not move about the room and tended to check for understanding merely by asking, “Do you understand?” Significantly, the teachers with smaller class sizes were able to monitor the work of individual students more effectively and offer them feedback while they worked; teachers with larger class sizes generally used peers to give feedback within cooperative groups.

**DISCUSSION AND CONCLUSIONS**

This paper presents the history of the CCUEI program and examines the ways in which the CCUEI curriculum reflects theoretical foundations of the English language immersion experiment in China and the ways in which the theory-to-practice model has been observed in the instructional performance of the CCUEI classroom teachers. Based on the findings, CCUEI educators clearly understand the following:

- CLI departs from traditional English language teaching in China—from a single focus on language instruction to a focus on learning language through subject-matter content.
- Integrated content should be delivered through comprehensible input strategies with opportunities for output language appropriate and authentic to the discipline (following theories introduced by Cummins, Genesee, Krashen, and Swain).
- English immersion curriculum should engage students in authentic learning
tasks developmentally appropriate to students’ levels of English language learning and acquisition (following theories introduced by Piaget and Vygotsky).

- Concepts of content and academic language are enhanced during collaborative social interactions (following research of Holt and Jacobs).

Despite the observed large class sizes, limited learning materials available for all students enrolled in CCUEI programs, and emphasis on high-stakes testing (Hoare, 2010), the students appeared to be engaged, productive, and successful L2 English language learners. They worked together and supported their classmates as members of a classroom community.

It is generally understood that Chinese educators believe in positive effects from students’ efforts. Further, based on the influences of Confucius, discipline is one of the primary objectives of education; therefore, teachers implicitly educate students to respect the norms of the community. As Cheng (1998) proposed about Chinese education, shared values “shape perceptions about inter-student competition, levels of expectations conveyed to students, and norms concerning desirable behavior in schools” (p. 13). Although CCUEI educators rarely identified Confucian philosophy as central to their curriculum design and classroom teaching practices, this moral influence was apparent in their classrooms.

Although CCUEI is considered a transformational model of English education in China (Qiang & Zhao, 2001), it is not without challenges (Hoare, 2010; Huang et al., 2011), including large class sizes; a lack of availability of teaching materials, supplies, and computer technology for lesson implementation; and varied teacher competency levels in English for academic content areas at the middle school level. The strengths of the program, on the other hand, are promising. They include a strong commitment by CCUEI Research Collaborative team members to apply research-based CLI L2 immersion and constructivist theories and the collaborative nature of curriculum development that aligns with Chinese academic content standards. Furthermore, a professional development strategy has been designed to support CCUEI teachers, curriculum designers, and contributors in applying theory to practice. CCUEI teachers can blend their traditional approaches while following the new orientation of CLI L2 English immersion pedagogy.

A recent study of the program (Kong, Hoare, & Chi, 2011) concluded, “The commitment of the teachers makes the prospects for the long term success of some form of content-based instruction good as long as the teachers continue to receive the support they now get from their schools and the CCUEI Project” (p. 88). By participating in a collaborative and supportive network of educators, these teachers likely will continue to help their CLI L2 English immersion students excel in their learning.
REFERENCE NOTES

1. “Community of practice” refers to the monthly meetings convened by a regional supervisor to allow CCUEI teachers, university faculty, campus administrators, and observers to share best practices and resources in English language immersion teaching (Lave & Wenger, 1991). Frequently, parents and community members also attend.

2. Texts referred to in this article are CCUEI-developed curriculum materials for the English Reader Series: Stories and Activities for Children, the Curriculum Integration in the English Immersion series, the Moral Education and Social Studies in the English Immersion series, and Science Education in the English Immersion series.

3. In the context of this article, technology refers to the Internet and Microsoft Word, PowerPoint, and Excel; and digital photography and video for the purposes of instruction.

4. Indicators from the EI-TEFF include the following:
   • Teacher clearly communicates content-learning goals and objectives to students;
   • Teacher clearly communicates expectations of English language use in the content area to students;
   • Teacher models accurate use of language, articulates and enunciates clearly;
   • Teacher uses different modes of language expression to help students understand the content of learning;
   • Teacher uses a variety of activities to involve students in the learning process;
   • Teacher uses questioning and responding methods to enhance student enthusiasm for engaging in higher-order thinking skills and using English language;
   • Teacher uses class time effectively, maintains the flow of the lesson and adjusts learning activities as the situation demands;
   • Teacher monitors learning of all students by frequently checking for understanding and providing feedback before, during and after instruction; and
   • Teacher creates or selects evaluation strategies that are appropriate for the students and are aligned with the objectives and goals of the lesson.

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