

# CLIL for CALP in the multilingual, pluricultural, globalized knowledge society: Experiences and backgrounds to L2 English usage among Latin American L1 Spanish-users

AICLE para CALP en la sociedad de conocimiento multilingüe, pluricultural, y globalizada: Experiencias y antecedentes de uso L2 del inglés entre usuarios latinoamericanos del español L1

**Carl Edlund ANDERSON**  
University of La Sabana  
(Chía, Colombia)

## Abstract

*An important aspect of preparing learners for the globalized “knowledge society” is the development of (cognitive) academic language proficiency (CALP) in an L2 for use in postgraduate and/or professional environments. This small-scale study sought trends in acquisition and usage of English as an L2 amongst Latin American L1 Spanish-users. Among other findings, although stronger informal conversational skills (BICS) correlated with early exposure/instruction, many participants who came to English relatively late in life for use in postgraduate/professional situations had been able to develop sufficient CALP for success, although reporting significant challenges in L2 CALP development perceived as related to underdeveloped L1 CALP, despite L1 tertiary educational experience. Further investigation is vital, but there is a clear need to consider the non-linguistic (as well as linguistic) elements that play a role in the development of CALP for different purposes and at different levels, in both the L1 and any L2, amongst learners in different contexts.*

**Key Words:** CLIL; CALP; academic language proficiency; knowledge society; L1 education.

## Resumen

*Un aspecto importante para preparar a los estudiantes para la hoy globalizada “sociedad del conocimiento” es el desarrollo de la competencia lingüística cognitiva y académica (CALP) en una segunda lengua (L2) para el uso en ámbitos profesionales y/o de formación postgradual. Este estudio a pequeña escala pretendió identificar tendencias en la adquisición y el uso del inglés como segunda lengua entre usuarios latinoamericanos cuya lengua materna es el español. Los resultados denotan que a pesar de que los estudiantes manejaban sólidas estrategias básicas de comunicación interpersonal (BICS) relacionadas con el contacto/instrucción temprana en la segunda lengua, muchos participantes que tuvieron contacto con el idioma inglés relativamente tarde en la vida en situaciones profesionales o de formación postgradual han sido capaces de desarrollar suficiente competencia lingüística cognitiva y académica (CALP) con miras al éxito a pesar de reportar retos significativos en el desarrollo de esa competencia en la segunda lengua. Esto se percibe como una proficiencia subdesarrollada en la lengua materna, a pesar de que los estudiantes poseían experiencia educativa a nivel terciario en la lengua materna. Se requieren futuros estudios, pero por ahora, existe la clara necesidad de considerar los elementos no-lingüísticos (así como los lingüísticos) que juegan un papel en el desarrollo de la competencia lingüística cognitiva y académica (CALP) para diferentes propósitos y en diferentes niveles, tanto en la lengua materna, como en la segunda lengua, y entre estudiantes de diversos contextos.*

**Palabras Claves:** AICLE, CALP, proficiencia cognitiva en los usos académicos de la lengua; sociedad del conocimiento; la educación en lengua primera.

## INTRODUCTION

It has become a commonplace bordering on cliché to observe how changing economies, demographics, and information and communication technologies have been transforming the world into a far more integrated and globalized place. Closely related are understandings about the rise of the “knowledge society” (or similar terms used with broadly congruent senses) and its implications, accompanied by concern about how to prepare current and future generations for survival and success in it.

Conceptions of the knowledge society and its ilk seem to center—often implicitly, occasionally explicitly—around the idea of economic development being driven by innovation of products and/or services that enable solutions to existing or even as-yet unrecognized problems, as well as realization that such innovations depend on the creative activities of persons equipped with, among other things, the necessary information literacy competences (SCONUL, 2011) and higher order thinking skills (Bloom & Krathwohl, 1956; Anderson et al., 2001).

If perhaps not quite so frequently encountered as ruminations on what it means to prepare learners for the knowledge society—but perhaps encountered with increasing frequency—is explicit recognition that multilingualism is not just an asset for such people but an increasingly vital basic skill. Such recognition is encapsulated for English-languages teachers and learners in Graddol’s (2006) complementary views on the increasingly common understanding of communicative competence in English as a “basic skill” (p. 72) and the general “doom of monolingualism” (p. 14). Arguably, multilingualism may have been the norm for much of human history—and probably remains so today in many parts of the globe—but the centuries-long “monolingual sleep” that prevailed in much of the Western world seems to be ending. Even majority English-using countries of the “inner circle” (Kachru, 1985) are waking up to the realization that “English alone is not enough” (The Nuffield Languages Inquiry, 2000, p. 14) and that “monolingual English speakers face a bleak economic future” (Graddol, 2006, p. 14). Closely allied with the idea of multilingualism is that of intercultural competence, in the sense of being able to interact successfully with people from widely varying cultural backgrounds, regardless of the language (or languages) used for such interaction.

Accordingly, an understanding of the importance of a workforce comprised of individuals equipped with not merely content-oriented information but also the cognitive skills to make use of that information in problem-solving and the ability to communicate effectively through different media and cultural spheres—to facilitate not just access to information but its effective and creative use dissemination of the results—lies at the heart of Coyle’s conception of the 4Cs (content, cognition, communication, culture) that underscore contemporary the CLIL approaches (Coyle, 1999; Coyle, 2005; Coyle, Hood, & Marsh, 2010).

The emphasis place on cognitive skills and higher order thinking skills in CLIL will recall Cummins’s conception (1979, 1980, 1981a, 1981b) of CALP (Cognitive Academic Language Proficiency) as contrasted with BICS (Basic Interpersonal Communication); Cummins also uses the terms *academic language proficiency* and *conversational fluency* interchangeably with, respectively, CALP and BICS (2008, p. 71). The origins of Cummins’s distinction between these two types of communicative skills or proficiencies lies in his focus on their development amongst immigrant children learning English as an L2 within the Canadian educational system, with an initial aim of examining the longer period such children required for “the attainment of grade norms in academic aspects of English” in comparison with “the attainment of peer-appropriate fluency in English” (Cummins, 2008, p.73).

Cummins has emphasized that the BICS/CALP distinction was developed partially in response to earlier conceptions such as views of “language proficiency” as a unitary construct (2008, p. 79), though equally the conception of CALP in particular has itself been criticized as over simplistic. Scarcella (2003), for example, considers the concept of CALP offering little of practical value in helping learners acquire “academic English” (pp. 5-8) and proposes instead an alternative framework that attempts a far more comprehensive analysis of academic language as an aid in this purpose. Cummins has noted that Scarcella’s framework is in fact oriented towards a completely different purpose than was the original BICS/CALP distinction, though this is perhaps worth reemphasizing, as many educators may well remain in danger of conceiving the now extremely familiar concept CALP itself as a “unitary” construct or attempt to use it as a tool for purposes that it was not designed. Nevertheless, the term can remain useful in a wide variety of circumstances as long we are careful about the particular senses in (or purposes for) which we use it, which may or may not transcend the specific senses with which (or purposes for which) that Cummins originally used it.

Cummins himself has noted (2008) that the BICS/CALP “makes no claim to focus on any context other than that of the school” (p. 80). Similarly, relationship between the concept of CALP “the attainment of *grade norms* [my emphasis] in academic aspects of English” (Cummins, 2008, p. 73) should remind us that, in effect, different “levels” of are needed for tasks of differing nature and complexity. A five-year old may need a level of CALP appropriate to learning the basics of reading and writing; a fifteen-year old may need a level of CALP appropriate to writing a book report; twenty-five-year may need a level of CALP appropriate to writing a doctoral thesis; a thirty-five year old may need a level of CALP appropriate to writing a business proposal—or to presenting such a proposal orally, for that matter. Clearly, information literary and higher order thinking skills play roles in all these tasks, but probably few educators would disagree that preparing a doctoral thesis somehow requires more sophisticated cognitive, communicative, content-based (and, probably, cultural) competences than does a secondary-school book report—yet many of us might be hard-pressed to pin down the specific aspects or levels of “sophistication” that we perceive as appropriate.

Equally, just as the “law of the instrument” (Kaplan, 1964, p. 28), famously formulated by Maslow (1966) as “It is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail” (p. 15), may explain educators’ focus on school-oriented contexts, it may also explain language educators’ focus on linguistic points of view. Cummins’s conception of BICS/CALP has evolved to include consideration of *discrete language skills* (2001), which represent the essentially linguistic components of communicative competence, but there remains much to do in terms of identifying, raising our awareness about, and addressing the roles played by the numerous non-linguistic competences needed for successful communicative performance—especially amongst L2 learners. Even in bilingual educational settings, many teachers may be familiar with such situations as (for example) the science teacher believing the students’ inability to write a lab report in English is a linguistic problem, while the English teacher believes it is a problem related to the students’ knowledge of appropriate methodology within the international academic discipline of science. In reality, of course, it might be one, the other, or both. Writing a lab report (or a book report, or a business proposal) is a communicative task that goes well beyond purely linguistic knowledge or skills, demanding appropriate content-based, cognitive, and even “cultural” competences—at the least in the sense that genre norms can be mediated by internationally constructed “professional cultures”.

In relation to this, although much research that considers such concepts as BICS and CALP has been focused L2 language learners, Cummins's theory of *interdependence* or *common underlying proficiency* (in which the learner's development of conceptual, cognitive, and metalinguistic competences in the L1 language positively influence the development of the ability to deploy such competences in the L2) suggest that more attention should be paid to how even monolingual learners develop both the linguistic and non-linguistic aspects of their L1 CALP. After all, most people learn (for example) the "language of mathematics" in their L1 in the school rather than the home, such that an L1 mathematics teacher could be conceived of as a kind of L1 CLIL instructor (albeit one dramatically aided by the inherent linguistic scaffolding provided to the students by their surrounding L1 communicative environment).

Still more attention should probably be paid to how L2-learners developed the linguistic and non-linguistic aspects of their L1 CALP. From the beginning, Cummins's research (1978, 1981b) has emphasized not only the negative impact on learners made to operate in an insufficiently developed L2 without recourse to their L1, but also that an insufficiently developed L1 likewise negatively impacts the development of L2—a situation perhaps most evident in terms of CALP. It should be self-evident from the very distinction of BICS and CALP that many aspects of CALP *even in an L1* must be specifically learned outside the kind of home or social contexts that support inherent development of BICS in the L1. In this respect, Roessingh (2006) observes that many monolingual learners ("native speakers") have difficulty or even fail in developing the competences needed for operation in the most context-reduced and cognitively demanding environments of the sort encountered by "skilled workers, professionals, and business-class" individuals (p. 95). If nothing else, the proliferation of university writing centers as well as a continual stream of books on academic writing aimed principally at monolingual speakers should warn us that many, perhaps most, people struggle to obtain the more "sophisticated" levels of CALP demanded by tertiary education and the business world of the knowledge society *even in their L1*.

CLIL approaches, as these move beyond the "mere" integration of language and content in the classroom to contemplate the role of the 4Cs in successful problem-solving within the context of the knowledge society—whether in academic or professional contexts—offer at least the hope of ways to address some of these issues. Yet as educators and policy makers themselves struggle to retool educational systems, it would seem vital to understand more about how present L2 users (and learners) acquired (or are trying to acquire) their L2, how they are actually using it (or how they hope to use it), what needs they continue to have, and how and to what extent they acquired CALP and its related competences in both their L1 and L2. Although we may expect the world to continue to change around us, much of the multilingual, pluricultural, globalized knowledge society is already here today—and has much to tell us about how to prepare for more tomorrow.

## METHODOLOGY

In order to discover more about the different environments in which Latin American L1 Spanish speakers have experienced (had exposure to or instruction in) or used English at vary stages of their lives, and the backgrounds to these experiences, a series of semi-structured interviews were carried out with 15 volunteer participants (5 male and 10 female, though the participants' sex was not considered further in the course of the study). All were informed about the nature and purpose of the interviews and investigation, and all agreed freely to participate. Interviews were for the

most part conducted synchronously, face-to-face; a few were conducted by telephone or Internet voice-call tools, and some follow-up was done by e-mail.

All participants were born in majority Spanish-using societies in Latin America, and all but two in Colombia. Most of those born in Colombia remain in the country of their birth, though some currently or formerly lived in majority English-speaking environments; one currently lives in a majority German-speaking environment. Both non-Colombian participants currently live in majority English-speaking environments. Two participants were born in Colombia and moved to the United States of America before school age, thereafter using English in most domains of life but continuing using Spanish in the home. All participants who were schooled in Latin America were from socio-economic backgrounds that permitted them to attend private schools of some kind and at least undergraduate level tertiary education (though no distinction is made here between state and private universities). The two participants schooled in the United States attended state primary and secondary schools and were attending state universities at the time of their interviews.

Because of various factors—such as the relatively small size of the study and the particular characteristics of the participants, who should not be understood as particularly representative of any wider population or population sub-set—it should be emphasized from the outset that this study must not be understood as providing any very definitive findings about the nature and place of English-language learning or usage in Latin American contexts. Rather, this investigation represents something more of an initial pilot study, with an interest in identifying some possible trends, as well as avenues for further research.<sup>1</sup>

The interviews sought to obtain information about the participants' experiences with English at different stages of their lives, with a particular focus on types of instructional/linguistic contexts, especially in terms of:

- majority Spanish-language environments vs. majority English-language environments
- monolingual vs. bilingual environments (particularly in the home, workplace, or social spaces)
- bilingual immersion instruction vs. communicative language teaching courses
- levels of English-language media input or exposure (whether in terms of popular or technical media).

Additionally, an effort was made to evaluate the participants' present levels of English in terms of *informal conversational* and *formal technical* competence and/or comfort—although, of course, the nature of the study with its context of verbally conducted interviews places severe limitations on identifying these aspects. For example, the majority of interaction with the participants was oral, such that any consideration of writing or reading skills was nearly impossible to take into account. Also, as noted, although Cummins warns that his concept of CALP is explicitly focused on school contexts, an essential congruence between the kind of communicative proficiencies needed within the academic and professional domains of the knowledge, in line with Scarcella's acknowledgement (2003) that what she terms "academic English" is also used "in business settings as well as courts of law" (p. 9), is accepted in this study, with its focus on persons using English as an L2 in professional contexts. With such caveats, these the terms BICS and CALP are used throughout the remainder of this paper in reference to the *informal conversational* and *formal technical* competences as evaluated.

<sup>1</sup> Although such limitations were contemplated from the beginning of this study, I am grateful to peer reviewers for emphasizing the importance of highlighting these aspects.

It must also be recognized that these performance-based evaluations are also dependent on the evaluator's perhaps limited ability to judge a participant's management of technical English in a field of knowledge outside the evaluator's own. It would seem not improbable that persons who learned English as an L2 but who work at advanced or professional levels in fields like international law, biochemistry, or medicine are more proficient with the use of registers of English pertinent to those fields than many L1 users outside those fields.

Nevertheless, it seemed relevant to essay at least approximations of the participants' levels, and these are provided in terms of the Common European Framework of Reference for Languages (CEFR) (Council of Europe, 2001), particularly in terms of that document's Table 3, "Common Reference Levels: qualitative aspects of spoken language use" (pp. 28-29) and the "General Linguistic Scale" (p. 110). It is recognized that the CEFR attempts to embrace numerous non-linguistic competences that affect overall communicative competences—though attempting to track or account for them all is beyond the scope of this study. It is likewise recognized that, in many respects, the CEFR scales incorporate aspects of BICS in their "lower" halves (A-B levels) and aspects of CALP in their "upper" halve (B-C), situations that complicate efforts to use the scales to distinguish separate levels in *informal conversational* and *formal technical* communicative competences. It is, however, hoped that the now-widespread familiarity of the CEFR makes it practical aid to reader understanding in these cases.

## RESULTS

The principal directly comparable results are presented in Table 1; further trends that emerged from the data that are less easily represented in tabular form are then discussed separately in the text.

In Table 1, most participants are identified by letters A-M, arranged along the horizontal axis roughly by age group. Exceptions are the two participants who grew up principally in the United States, who may be understood as somewhat different cases; they are identified by letters X and Y, set apart and distinguished by light shading. Stages of life are grouped along the vertical axis roughly in terms of pre-school, school (including undergraduate programs, which all participants attended in the same countries as their primary and secondary schooling), postgraduate (not always applicable, though frequently occurring in different countries than earlier stages of schooling), and adult. The following key to the abbreviations used in Table 1 is provided:

- Countries
  - A: Argentina
  - C: Colombia
  - V: Venezuela
  - UK: United Kingdom
  - US: United States of America
  - G: Germany
- Instructional/Linguistic Contexts:
  - CLT: communicative language teaching
  - M: Monolingual instruction or environment
  - B: Bilingual instruction or environment
  - T: trilingual environment
  - S: majority Spanish-language instruction or environment
  - E: majority English-language instruction or environment

- μ: English-language media input/exposure
- Frequency/Intensity of Exposure/Use
  - x: negligible
  - -: seldom/minimal/low
  - ~: occasional/some/moderate
  - +: often/frequent/high
- Other:
  - >: moved (from country to country) or transitioned (from CLT to bilingual instruction)
  - NA: not applicable (because the participant had no experience at the indicated stage/level)

**Table 1. Principal directly comparable results on linguistic/instructional environments at different life stages**

Participant	A	B	C	D	E	F	G	H	I	J	K	L	M	Y	Z	
<b>Current Age Group</b>	30-40	20-30	30-40	30-40	30-40	30-40	30-40	30-40	30-40	30-40	30-40	40-50	40-50	20-30	20-30	
<b>Instructional/Linguistics Context</b>	Pre-School Country	CO	CO	CO	CO	CO	CO	VE	AR	CO	CO	CO	CO	CO	CO	
	Pre-School Home	MS	MS	MS	MS	MS	MS	MS	B	MS	MS	MS	MS	MS	MS	
	School Country	CO	CO	CO	CO	CO	CO	VE	AR	CO	CO	CO	CO	CO	US	US
	School Home	MS +μ	MS +μ	MS +μ	MS xμ	MS -μ	MS -μ	MS -μ	B +μ	MS -μ	MS -μ	MS xμ	MS xμ	MS xμ	MS +μ	MS +μ
	Primary	CLT > B	CLT > B	CLT > B	MS	MS	B	MS	B	MS	MS	MS	MS	MS	ME	ME
	Secondary	CLT/B	CLT/B	CLT/B	MS	CLT	B	CLT > B	B	CLT	CLT	MS	CLT	MS	ME	ME
	Undergraduate	CLT	CLT	CLT	CLT	CLT	B	B	B	CLT	CLT	CLT	CLT	MS	ME	ME
	Postgraduate Country	NA	NA	NA	NA	NA	UK > US	UK	US	UK	CO	UK	NA	CO	NA	NA
	Postgraduate School	NA	NA	NA	NA	CLT	ME	ME	ME	ME	CLT	ME	NA	MS	NA	NA
	Adult Country	CO	CO	CO	CO	CO	US	UK	UK	GE	UK > CO	UK > CO	CO	CO	US	US
	Adult Home	MS -μ	MS -μ	MS -μ	MS -μ	MS -μ	MS +μ	MS +μ	MS +μ	T -μ	B +μ	B +μ	MS -μ	MS -μ	MS +μ	MS +μ
	Adult Social	xE	xE	xE	xE	-E	+E	+E	+E	-E	+E	-E	xE	-E	+E	+E
Adult Workplace	xE	xE	-E	xE CLT	xE CLT	+E	+E	+E	-E	NA	+E	xE CLT	xE CLT	NA	NA	
<b>Estimated Level</b>	Informal Conversational	B2	B2	B2	A2	B1	C1	C1	C2	B2	B2	B2	A2	A1	C2	C2
	Formal Technical	B1	B1	B1	A1	A2	C1	C1	C2	B2	B2	B2	A1	Ax	C2	C2

From Table 1, it can be seen that the participants experiences with English range widely—some received instruction and/or exposure from early ages, others only came to approach the language

well into adult life. None received instruction that could be understood as having corresponded to a CLIL approach (and had completed, or nearly completed, their secondary schooling before the term CLIL was coined), but some received instruction within a communicative language teaching (CLT) context, and some moved from CLT instruction to bilingual instruction (understood as an educational context in which at least some courses are taught in a target language, though without the explicit linguistic scaffolding implied by a CLIL approach) even at primary school levels. Within the results of Table 1, a number of groups and subgroups may be distinguished.

Although there was broad agreement amongst the participants that, in general, communicative competences in English were an asset in adult life, there were noticeable differences in attitude between participants in different situations.

Participants A, B, and C seemed to regard ability with English as a valuable and worthy accomplishment, but little more. Only C reported even occasional use of English in working life, and all in this group seemed satisfied with their present level of competence; A and B additionally expressed confidence that their current competences would serve in the event that they did need to use English in professional contexts. Participants currently living in majority English-using countries (F, G, and H—and Y and Z, for that matter) generally had stronger abilities than A, B, and C, but were likewise satisfied with their performance.

In contrast, participants D, E, L, and M had some of the lowest levels of English, but considered improving those levels as strongly desirable—even vital—in the contexts of their careers, and all had sought instructional opportunities either through their jobs or privately. None of this group had experienced anything other than CLT instruction, and none seemed aware of the CLIL approach, although when asked they tended to agree that learning language through or with content drawn from their respective fields of work would be an approach that “made sense” or “seemed logical”. On the other hand, the same participants were capable of, at different points in their interview, expressing discomfort or suspicion with what they perceived as “non-traditional” language-learning approaches, in contrast regarding CLT-oriented instruction (not that the concept or terminology of CLT, as such, was known to them) as something akin to “tried and true”.

Participant J, who had lived in a majority English-using country for a number of years before returning to a majority Spanish-speaking country, despite living in a bilingual home (with an L1 English-using spouse) where use of and exposure to English were frequent, expressed concerns that their competence in English was declining from lack of practice. Nevertheless, they also expressed the belief that, although unemployed at the time of the interview, their abilities with English would prove attractive to potential employers.

Participant K had also lived in a bilingual home with a L1 English-using partner and frequent use of and exposure to English, and had also moved from a majority English-using country in which they had studied and worked for some years back to a majority Spanish-speaking country. However, although K continued to use English in the workplace—with an emphasis on business and legal contexts—in both oral and written forms on a daily basis, they also expressed concern about atrophy of both informal and technical communicative competences, as well as a desire for an instructional-type context outside the home or work in which improve. Interestingly, participant K also reported feeling that informal conversational competences developed from living in majority English-speaking country—and in a bilingual household—had been a significant aid to social interaction with English-using business contacts (and thus an important element in successful business relations) when travelling to locations without a Spanish-using majority (whether or not those business contacts themselves had English as an L1 or L2). They likewise reported that colleagues whose use of English was largely limited to technical fields had had



considerably more difficulty in this respect. Participant K, as the participant most frequently using English as an international language or lingua franca to communicate with people from a wide range of ethnolinguistic backgrounds, was also the only participant to raise the issue of intercultural communicative competences explicitly, noting that “you can’t talk to Italians like you talk to the English” regardless of the language being used for communication, as well as that “you can’t even talk to the the *gringos* [Americans] like you talk to the English”, recognizing the need for intercultural approaches even within the context various majority English-using cultures.

It was, however, outside the scope of this study to determine whether J’s and K’s apparently lower levels of competence (in comparison with F, G, and H) could indeed be linked with their removal from a majority English-using environment (despite continued use in the home).

Perhaps not surprisingly, participants who moved into bilingual instructional environments in primary or secondary school (A, B, C, F, G, and H) seemed to evidence a generally higher levels of English level, though there also seems to be a significant positive effect from using English at the level of higher education and in professional environments. Although participants A, B, and C received some of the strongest support for English in early childhood and primary/secondary schooling, and presented perhaps the most “native-like” accent and pronunciation of all participants barring Y and Z, in other respects they seemed no stronger, and perhaps weaker, than participants who had begun learning English much later but had used it, and generally continued to use it, in the more cognitively demanding arenas of higher education and the workplace (I, J, and K). These latter participants, although lacking the “native-like” pronunciation features of A, B, and C, seemed to demonstrate stronger abilities in formal technical usage than the participants whose instruction in and exposure to English had been concentrated in the pre-adult stages. Similarly, it is perhaps telling that the group with the lowest levels of English overall were those who had neither benefited from much early instruction or exposure nor a need to use the language in higher education or the workplace.

It was hypothesized that there might be a correlation between exposure to and use of English through popular media and social or home environments and stronger communicative competences—at least in the arenas of informational conversational skills or BICS—but within the context of this study, at least, it was difficult to identify any clear trends. Any additive or supporting effect produced by such exposure to use seems to have been at least masked by other factors. Certainly, levels of exposure to popular media in English, or use of English in social and/or home environments, seem capable of changing dramatically and unexpectedly throughout the course of an individual’s life. At best, it can perhaps be said that persons actively using English for educational or professional purposes seem more inclined to use English in other aspects of their lives, though the fact that a significant number of participants who might be classed within such a group also live and work in majority English-using environments anyway (F, G, and H—not to mention X and Y) may have affected this finding.

It is, however, still particularly useful to compare the experiences of participants X and Y, whose exposure to English took place principally in a monolingual English-speaking educational and social environment outside the home, with those of the other participants. (Both these participants are currently studying at the undergraduate level; thus the lack of entries with regards to their postgraduate or workplace situations). Both grew up in homes with L1 Spanish-using parents and, in both these cases, Spanish remains the overwhelmingly predominant language of communication with their respective parents. The participants’ high levels of English were otherwise equaled only by participant H (who grew up in a bilingual household, received bilingual or monolingual English schooling throughout their educational career, and continues to work in a

majority English-using environment). On the other hand, both X and Y mentioned in interviews that they were not confident in their use of Spanish outside the home environment; their perceptions, at least, seemed to be that their English-language CALP was significantly stronger than their Spanish-language CALP. In contrast, participant H reported feeling equally confident in their English or Spanish, regardless of the domain of use.

It is also interesting to compare the responses of X and Y about their senses of relative proficiency in BICS and CALP (not that they used these terms) in their L1 and L2 with those of other participants whose jobs demanded strong CALP in English—F, G, H, and K. This group who along with J, had all studied at postgraduate levels in majority-English-using environments tended to report feeling that their L1 CALP, as well as their L2 CALP, had been underdeveloped at the time at which they began postgraduate studies. Equally, most felt that their L1 CALP had probably been improved by influence from the subsequent strengthening of their L2 CALP, though at the same time most expressed concern that they might be less proficient in their L1 than in their L2 in terms of discipline-specific vocabulary and usage.

Standing slightly apart from this trend was participant H, with a strong bilingual background in home and schooling, who felt that although their CALP in English had required further development in order for them to succeed at the postgraduate level, no more so than had that of their monolingual English-using colleagues. Similarly, as noted, participant H reported feeling equally confident in the use of both their languages regardless of domain or situation.

Nevertheless, all of participants J (who had used English in their professional life in the UK, though not since returning to Colombia), F, G, H, and K reflected that they had received little training in areas such as “academic language” or information literacy in or through their L1. Moreover, only participant K reported any training in “academic English”, though follow-up questions revealed that even this training—received as part of their postgraduate experience in a majority English-using environment—had focused largely on linguistic and mechanical aspects (as opposed to, say, discipline-appropriate information literacy or rhetorical strategies).

Participants A, B, and C reported comfort with their levels of L1 CALP, though their relative lack of experience with the use of English in tertiary educational environments or professional work made it especially difficult to determine their L2 CALP. Participants D, E, L, and M, with relatively low L2 competences across the board and little or no current use of (as opposed to need to use) English in tertiary educational or professional contexts, likewise reported comfort with their levels of L1 CALP.

## DISCUSSION

It must be emphasized that a study of such limited scope can hardly be considered conclusive. The limited number of participants, their non-representative socioeconomic statuses, and the uncertainties regarding the estimates of their communicative competences must be recognized. Nevertheless, a number of themes emerge that may be worth keeping in consideration as we continue to develop new approaches to the learning of content and language, as well as for exploration through more developed research in the future.

As might be expected, there does seem to be a correlation between stronger communicative competences and early learning—at least at the informal conversational level. Certainly, the acquisition of “native-like” pronunciation in an L2 seems associated with significant exposure to that L2 in relatively early childhood, though it may well be doubted how valuable such a skill is for L2 English in a world where L1 English-users are a shrinking minority. At the same time, it

seems eminently possible to acquire communicative competences in L2 at a sufficiently advanced level for use in demanding contexts like postgraduate study or professional work in majority L2-using environments even when the learners begin as adolescents or even adults. Such results are no surprise, being broadly in-line with numerous existing studies (Dulay & Burt, 1978; Krashen, Long, & Scarcella, 1979; Krashen, Scarcella, & Long, 1982; Krashen, 1982).

Consideration of how this study's results fit into the framework of BICS and CALP is more complicated. It is difficult to correlate early exposure/instruction directly with more developed CALP, at least partially because the low incidence of professional English use amongst some of the participants with the highest degrees of early exposure/instruction (A, B, and C). Participant H had a high level of formal technical competence, and enjoyed a strongly bilingual from an early age, but had also used English continuously throughout their tertiary education and professional careers. On the other hand, participants F and G, even more so J and K, had come to English at least slightly later (and much later in the case of K), but revealed formal technical competences at least as high or higher as those participants who had enjoyed more early exposure/instruction but less experience in the more demanding domains of tertiary education or professional work.

It is notable that those participants who needed L2 CALP at the level of tertiary education and/or professional work were also those who most readily reported both having received little explicit L1 instruction oriented towards L1 CALP development and experiencing challenges in the attaining necessary levels of L2 CALP. It is worth considering this situation in light of results from CLIL-oriented studies in Germany (Dalton-Puffer, 2008) that underscored students' limited gains written L2 competences with the observation (my emphases added):

The general writing competence of the learners is in need of development, particularly since *parallel results were obtained on writing tasks completed in the mother tongue*. What is at issue here clearly is the role of writing in content-teaching in general, *irrespective of the language it is conducted in*. (p. 7)

In this context, it is also interesting that the same participants reported subsequent discomfort with or suspicion about their L1 CALP. It seems as if awareness of their own capabilities and the quality of their training (in or through either language) became more developed through the process of learning using their L2 in more cognitively demanding environment. It is also noteworthy that these participants speculated on whether their L1 CALP abilities might have been positively impacted by the development of L2 CALP abilities, although their situation also highlights the challenges of developing L2 CALP abilities when corresponding abilities have not been sufficiently developed in the L1, as Cummins has observed (1978, 1981b).

It may also be significant that the participants not needing (or having) particularly high levels of L2 English CALP were also those who reported feeling comfortable with their L1 CALP—although determining their relative L1 CALP abilities—which could, in theory, vary widely—was well outside the scope of this study. In some cases, it might be that relatively low L1 CALP is not required in the workplace; in other cases it may be that a majority L1 environment provided adequate scaffolding for these participants to learn discipline-specific L1 CALP discourse in the L1.

There is clearly a need for more research on the ways in which learners, whether monolingual or multilingual, develop CALP for different needs and to different levels. At the same time, there is clearly a need to treat importance of L1 CALP for the development of L2 CALP more seriously, along with the numerous non-linguistic competences (including the content-based, cognitive, and even cultural) that play a role in successful development and use of CALP in both L1 and L2 contexts. For many learners, an undersupplied common underlying proficiency may

affect their CALP in ways that are interpreted by their instructors as representing a linguistic deficiency, thereby masking stealthier deficiencies in the non-linguistic aspects of CALP (even if such a linguistic deficiencies may also exists). Insofar as tasks such as writing a lab report can be understood as having international, culturally independent (and non-linguistically defined) characteristics, a learner who knows these characteristics and can use them successfully in the context of their L1 is likely to be able to, given sufficient development of what Cummins might recognize the *discrete language skills* in the L2, do the same in that L2. In contrast, a learner who lacks knowledge about the non-linguistic characteristics of lab reports (or the appropriate cognitive skills to acquire and manage them) may struggle with such a task even if they have ample *discrete language skills* (or BICS) in either the L1 or L2. Language teachers, in particular, must guard against seeing all their students problems as linguistic problems.

Additionally, several observations drawn from participant K, who despite a lack of early exposure/instruction had come to use English more intensively in all spheres of adult professional life than most other participants, bear further attention. Participant K's observations about the importance of information conversational skills, or BICS, within professional contexts may be considered in relation to Dalton-Puffer's observations (2008), based on particular German studies, that the CLIL programs considered in those studies seemed to produce little or indefinite effect on learners' "informal/non-technical language" (pp. 5-6; see also Sylvén, 2004). This should serve as a warning that, in a rush to implement CLIL instruction or in seeking other alternatives to CLT, we must not cease to give adequate attention to L2 BICS, as successful competences for social and interpersonal interaction can strongly affect successful interaction in other spheres. In relation to this, K's additional observations about the important of appropriate intercultural competences for successful communication in the international arena

Of course, just as Canagarajah (2005) has emphasized that we do not know what cultural/ethnic varieties of English learners might need to negotiate in the future, but this idea could be extended to cultural spheres even in contexts where the common language is English. Two scientists who share a common background of disciplinary expectations and expect to communicate in a form of L2 English of relative "cultural neutrality" might nevertheless encounter non-linguistic (or not specifically linguistic) cultural issues that hinder successful interaction. Moreover, moving beyond purely linguistic or cultural concerns, we can probably recognize increasing uncertainty about the future professional contexts or disciplines in which our learners will work. Even the student studying science or law at the university level might end up working in some completely different field and, accordingly, would need to learn to negotiate a different discipline-appropriate register of an L2—and even the best CLIL program will inevitably best prepare a student for the kinds of content and language actually integrated within that program. We must go further in considering how to prepare learners to "discern the structure, patterns, and rules from the available data" within their context in order to "develop relative communicative competence" (Canagarajah, 2005, pp. 31-32) as necessary for success in that context—regardless of whether we are considering culturally or professionally mediated contexts.

Another cause for concern may be the suspicion, or lack of enthusiasm, for CLIL-like or other "alternative" approaches evinced by some participants, principally those at relatively early stages of L2 development, *despite* the strong desire these same participants had to improve their English *and* their general agreement that studying the L2 through materials drawn from or closely related to their professional fields "made sense". Sense aside, these participants seemed far more comfortable with the idea, at least, of "traditional" CLT-type courses. Equally, none seemed comfortable with the idea of self-regulated or autonomous learning, either as a sole means or

augment to traditional EFL—though it is difficult to say whether this is because of lack of autonomous learning skills, lack of time (though this was mentioned by some), or both. In any event, these participants evidently preferred the idea of “traditional-style”, teacher-led, classroom learning environments. It is difficult to say whether this is because these kinds of courses were simply more familiar to them; young learners might have fewer inhibitions of this kind—although, in contrast, the parents of young learners might have concerns similar to those of these participants. Discussion of the importance of in winning acceptance for CLIL (or self-regulated learning environments) amongst parents or other stakeholders is not infrequent in the literature, though it is likely to be something with which we must continue to contend, especially in environments where CLIL approaches remain (in, perhaps, contrast to Europe) unfamiliar.

The results of this study support the idea that although early exposure/instruction to an L2 aids in attainment of native-like BICS, this is clearly not vital (if perhaps still often desirable) for successful acquisition or use of L2 CALP. Nevertheless, although it would certainly seem that appropriate levels of CALP (however those might be defined) are vital to success in tertiary academic or knowledge-intensive professional environments, BICS is (at the very least) a useful adjunct and certainly important enough that CLIL programs should probably include more provision for their development (cf. Dalton, 2008). Moreover, bilingual education programs in environments where the majority language is not the L2 (contrasting with the situations of immigrant children contemplated in many studies) should take special care to scaffold the development of L2 CALP skills in order to reproduce or at least approach the “auto-scaffolding” effect that learners may receive from an L1 BICS environment in support of their in support of their L1 CALP; in this respect, more research on the role of exposure to or use of an L2 within the contexts of popular media or home/social environment would be welcomes.

Nevertheless, it also seems clear that the mere fact of early exposure/instruction, even in bilingual educational environments, is no guarantee of well-developed CALP (at any level, but certainly higher levels) in either L1 or L2. The successful acquisition and use of discipline-specific technical communicative competences in tertiary academic or professional situations—in either the L1 or an L2—seems to demand learners that learners acquire a variety of both linguistic and non-linguistic competences, either experientially (“on the job”, or “just in time”) or (perhaps preferably) through preparatory training. A successful CLIL course must ensure that CALP is developed appropriately in both the L1 and the L2.

Indeed, there should probably be much greater emphasis on the development of higher-order CALP than there may often be in all educational environments, *regardless of whether or not these include a bilingual or CLIL-based aspect*. Many aspects of CALP are, after all—as the term itself should remind us—not specifically or strictly linguistic: cognitive skills play a key role. In the context of this study, at least, it can be concluded that the participants offered little evidence of having received explicit efforts to develop higher-level CALP in their L1, and this may be true likely to be true in many L1 environments, regardless of language or culture. (Compare Dalton-Puffer’s observations on L1 and L2 academic writing, 2008, p. 5; or Roessingh on native speakers, 2006, p. 95.) The environmental scaffolding provided to L1 speakers by their majority L1 contexts seems to be sufficient in many cases of L1 speakers (though not all—perhaps not even a majority) to autonomously develop some level of CALP in their L1. This may not, however, equip them with the strategies for successful development of L2 CALP, especially in the most demanding contexts that require a higher levels of CALP than yet developed (or required) in the L1—for example, when moving from an L1 secondary school or undergraduate environment to an L2

undergraduate or postgraduate environment, or when a need for “professional-levels” of an L2 are suddenly required in the workplace.

CLIL approaches, properly implemented, should contemplate all these considerations within their very design, but the apparent general lack of attention to higher-order CALP development even in many monolingual L1 educational contexts offers a warning that we may not yet be taking this need sufficiently seriously. The precise nature of the many elements, linguistic and non-linguistic, that play into the development of CALP is something that requires further attention and research. Moreover, although we may hope that appropriate attention to the development of higher-order CALP in both L1 and L2 contexts will lead to better learner preparation for working life in the “knowledge age”, we must also recognize that there currently exist many people still aspiring to some degree of functional bilingualism, actively involved in efforts to learn an L2 for use in a professional or academic context that demands a relatively high order of CALP. In many cases, such learners may lack comparably appropriate CALP in their L1, and they may often be unaware of this lack. In at least some cases, such learners may be able to go on to achieve the necessary CALP in both languages, but they might well surely benefit from educational approaches distinct from those applied with students developing CALP in both L1 and L2 simultaneously.

CLIL arguably represents—or could represent—a new paradigm of education and learning in general that erases disciplinary boundaries. All education could—perhaps should—take a CLIL approach that inherently responds to the needs of the “knowledge age” that in fact produced (or at least greatly increased awareness of) the need for CLIL approaches in the first place (Coyle, Hood, Marsh, 2010, pp. 1-12). In Latin America, as in perhaps much of the “developing world”, there are significant numbers of learners who confront a need to acquire English as an L2 for use in environments that may demand a markedly higher level of CALP than they have yet developed in their L1. Equally, as signaled by researchers like Graddol (2006), many in the “inner circle” of still largely monolingual majority English-using countries may increasingly recognize that they face similar demands in a globalized world that, even if characterized by increasingly widespread use of English as an international lingua franca, will likely remain multilingual, as well as pluricultural. Well-designed CLIL programs must take these users’ various backgrounds, needs, and usage scenarios into account if they are to deliver comprehensive solutions to complex problems.

## REFERENCES

- Anderson, L.W. (Ed.), Krathwohl, D.R. (Ed.), Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J., & Wittrock, M.C. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives* (Complete edition). New York, NY: Longman.
- Bloom, B.S. and Krathwohl, D.R. (1956). *Taxonomy of educational objectives: The classification of educational goals, by a committee of college and university examiners. Handbook I: Cognitive domain*. New York, NY: Longman.
- Canagarajah, A.S. (2005). From Babel to Pentecost: Postmodern glottoscapes and the globalization of English. In L. Anglada, M. Barrios, & J. Williams (Eds.), *Towards the knowledge society: Making EFL education relevant* (pp. 22-35). Córdoba, Argentina: Comunic-arte Editorial.
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Cambridge, UK: Cambridge University Press. Retrieved from [http://www.coe.int/t/dg4/linguistic/Source/Framework\\_EN.pdf](http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf)
- Coyle, D. (1999). Theory and planning for effective classrooms: Supporting students in content and language integrated learning contexts. In J. Masih (Ed.), *Learning through a foreign language: Models, methods and outcomes*. London, UK: CILT Publications.
- Coyle, D. (2005). *Developing CLIL: Towards a theory of practice*, APAC Monograph 6, Barcelona, Spain: APAC.
- Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL: Content and language integrated learning*. Cambridge, UK: Cambridge University Press.
- Cummins, J. (1978). The cognitive development of children in immersion programs. *The Canadian Modern Language Review*, 34, 855-983.
- Cummins, J. (1979). Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters. *Working Papers on Bilingualism*, 19, 121–129.
- Cummins, J. (1980). The entry and exit fallacy in bilingual education. *NABE Journal*, 4(3), 25-59.
- Cummins, J. (1981a). Age on arrival and immigrant second language learning in Canada: A reassessment. *Applied Linguistics*, 2, 132-149.
- Cummins, J. (1981b). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework*. Los Angeles, CA: Evaluation, Dissemination and Assessment Center, California State University.
- Cummins, J. (2001). *Negotiating identities: Education for empowerment in a diverse society*, (2<sup>nd</sup> ed.). Los Angeles, CA: California Association for Bilingual Education.
- Cummins, J. (2003). BICS and CALP: Origins and rationale for the distinction. In C. B. Paulston & G. R. Tucker (Eds.) *Sociolinguistics: The essential readings* (pp. 322-328). London, UK: Blackwell.
- Dalton-Puffer, C. (2008). Outcomes and processes in content and language integrated learning (CLIL): Current research from Europe. In W. Delanoy & L. Volkman (Eds.), *Future perspectives for English language teaching* (pp. 139–157). Heidelberg, Germany: Carl Winter.

- Dulay, H., & Burt, M. (1978). From research to method in bilingual education. In J.E. Alatis (Ed.), *Georgetown University Round Table on Languages and Linguistics 1978* (pp. 551-575). Washington, DC: Georgetown University Press.
- Graddol, D. (2006). *English next: Why global English may mean the end of "English as a Foreign Language"*. London, UK: The British Council. Retrieved from <http://www.britishcouncil.org/learning-research-english-next.pdf>
- Kachru, B.B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk and H. Widdowson (Eds.), *English in the world: Teaching and learning the language and literatures* (pp. 11-36). Cambridge, UK: Cambridge University Press.
- Kaplan, A. (1964). *The conduct of inquiry: Methodology for behavioral science*. San Francisco, CA: Chandler Publishing.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York City, NY: Pergamon Press.
- Krashen, S.D., Long, M.H., & Scarcella, R.C. (1979). Age, rate and eventual attainment in second language acquisition. *TESOL Quarterly*, 13, 573-582.
- Krashen, S., Scarcella, R.C., & Long, M. (Eds.). (1982). *Child-adult differences in second language acquisition*. Rowley, MA: Newbury House.
- Maslow, A.H. (1966). *The psychology of science: A reconnaissance*. New York, NY: Harper and Row.
- Roessingh, H. (2006). BICS-CALP: An introduction for some, a review for others. *TESL Canada Journal/Revue TESL du Canada*, 23(2), 91-96.
- Scarcella, R. (2003). *Academic English: A conceptual framework*. The University of California Linguistic Minority Research Institute, Technical Report 2003-1. Santa Barbara, CA: The University of California.
- SCONUL Working Group on Information Literacy. (2011). *The SCONUL Seven Pillars of Information Literacy: Core Model for Higher Education*. London: Society of College, National, and University Libraries. Retrieved from [http://www.sconul.ac.uk/groups/information\\_literacy/publications/coremodel.pdf](http://www.sconul.ac.uk/groups/information_literacy/publications/coremodel.pdf)
- Sylvén, L.K. (2004). *Teaching in English or English teaching? On the effects of content and language integrated learning on Swedish learners' incidental vocabulary acquisition*. Gothenburg studies in English, 97. Acta universitatis Gothoburgensis. Göteborg, Sweden: Göteborgs universitet.

## BIODATA

**Carl Edlund ANDERSON** teaches in face-to-face and online Master's programs for in-service English teachers at the Department of Languages & Cultures at the University of La Sabana in Chía, Colombia. He holds an A.B. in Folklore & Mythology from Harvard College and a Ph.D. from the Faculty of English (Department of Anglo-Saxon, Norse, & Celtic) at the University of Cambridge, as well as a CELTA from the British Council in Bogotá, Colombia. Currently serving on the editorial board of the *Latin American Journal of Content and Language Integrated Learning*, his research interests include CLIL, world Englishes, intercultural rhetoric, academic writing, and minority languages and cultures of Colombia. Outside of academia, he has worked for many years as a writer, editor, and translator, especially within the high-technology industry.