Understanding the linkage gap between L2 education researchers and teachers

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Abstract

This paper reports on the results of a study that analyzed second language practitioners' and researchers' on-line interactions about six published articles written by the researcher participants. The project used Lavis et al.'s (2003) knowledge transfer framework and Graham et al. (2006) knowledge to action framework as foundations to create a shared space (an online forum) to facilitate dialogue and bring the two groups together, with the intent to enhance research access and utilization. We use text-linguistic analysis procedures to analyze the linguistic and ideational choices evident through the texts produced by the two groups online to understand how they shaped the direction and content of the interaction. The results reveal differences in the word choice and foci of the two groups and highlight the usefulness and limitations of the online forum. Discussion of the relevance of different aspects of the knowledge transfer frameworks used might enlighten future efforts to bridge the linkage gap.

Keywords: Linkage gap, Register analysis, Asynchronous text-based communication.

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Introduction

This paper describes a study of an online learning environment that sought to increase L2 teachers'/teacher candidates' (T/TCs) access to research and to enhance communication between L2 T/TC and researchers by providing a mutual space for such interaction. Given the acknowledged gap in interaction between education researchers and practitioners (e.g., Hemsley-Brown, 2004; Smylie & Corcoran, 2009) and the potential role of diverse discourse in creating such a gap (Cordingly, 2008, Sanders & Lewis, 2005), this paper explored the language used by T/TCs and researchers within the provided environment. In particular, the study explored if and how T/TCs' and researchers' linguistic and ideational choices differed and the implications of these choices for understanding the linkage gap.

Background

The Canadian Association of Second Language Teachers (CASLT) is an organization created to support L2 teachers. One of its goals is to facilitate sharing of information, with an accompanying strategic goal of disseminating research. Having identified teachers' limited access to research as a concern, CASLT, in partnership with the Canadian Modern Language Review, sought and received federal funding with a view to increase L2 T/TCs access to L2 research. CASLT, then, invited the second author to create a project to address the above goal.

Creation of an online space not only provided access to resources but also accessibility to T/TCs regardless of their location. The virtual space also aimed to facilitate direct communication between L2 researchers and T/TCs, thus addressing one of the causes of the linkage gap identified in the literature, namely the lack of a shared space (Davies, 2000; Hargreaves, 1996, 1997).

Rationale

Davies (2000) describes a gap between educational researchers and practitioners stating that the academic world encourages communication amongst academics to the neglect of communication with practitioners. As such, the academic writing valued amongst researchers is often less accessible to many T/TCs. Given the recent focus on data collection in schools as means to inform decisions (Ontario Leadership Strategy, 2011), increased access to research evidence could serve to provide additional information to educators who make daily decisions impacting children's education. This study sought to enhance communication between researchers and T/TCs while improving T/TC's access to L2 research.

Research Questions

The online space included a discussion forum for direct communication between researchers and T/TCs that allowed us to analyze their respective discourses. More specifically, for this paper, we share the analysis conducted to answer the following questions:
1.   Does the researchers' language use differ when writing for publication and when posting on the forum? If yes, in what way?
2.   How did the T/TCs respond to the texts of other teachers (i.e., forum posts) and those of the researchers (i.e., published articles and forum messages)?

Literature Review

The following section identifies the different factors that contribute to the creation of the linkage gap. The second section below explains the theoretical frameworks that guided the design of the study in general and the online shared space in particular.

Barriers and Challenges that Create the Linkage Gap

The relationship between research and practice is often described as tense or problematic across many fields (Davies, Nutley & Smith, 2000; Pfeffer, & Sutton, 2006) with practitioners questioning the relevance of research and researchers the potential to impact practice. Research reveals T/TC consult their readily available colleagues; and researchers more readily communicate with audiences of their peers (Rickinson, 2005) with little opportunity taken to communicate with each other. Such a lack of communication may be exacerbated by use of different registers with academic language being difficult to access for some who do not have enhanced research literacy. There seems to be, at best, a linkage gap defined as a lack of interaction between the two groups (Cooper, 2010) that persists in spite of repeated efforts to understand and address its causes. Enhancing communication between L2 T/TCs has the potential to increase knowledge building and collaborative problem solving through the pooling of intellectual and practical resources.

Calls to optimize communication between academics and practitioners have typically resulted in studies or interventions that have tried to identify the factors that create and foster the linkage gap, raise awareness of its repercussions, and propose conceptual frameworks to reduce it and "create a sustainable culture of collaboration and dialogue where theory and practice inform each other" (Allison & Carey, 2007, p65). However, these attempts to reduce the linkage gap seem to have limited success. Borg (2009) notes that teacher engagement with research remains a "minority activity" hindered by several interacting factors such as limited accessibility and comprehension. Nassaji (2012) maintains that the relationship between research and teaching remains problematic, saddled with several questions pertaining to the usefulness and relevance of research to teaching, and its ability to affect changes in teacher beliefs and practices. He underlines that skepticism is voiced by both researchers and teachers and concludes that both research limitations and differences in goals and orientations of the two groups contribute to the communication gap.

Correspondingly, the factors contributing to the linkage gap between researchers and teachers have been categorized as conceptual, organizational/institutional, and attitudinal. At the conceptual level, Bartels (2003) who compared academics' and teachers' assessment of education articles written by researchers and teachers concluded that the two groups validated and used research ideas differently. Researchers valued the argumentation processes based on objective data and explicit connections made to the previous knowledge shared by the larger educational community. Teachers appreciated articles that proposed information and ideas that had immediate relevance to the classroom experience. Ellis (2001) makes a similar distinction between researchers' orientation to technical knowledge which is explicit and open to systematic empirical investigation and teachers' practical knowledge which is rather intuitive and is rooted in lived classroom experiences. These differences in orientation may be one of the reasons for teachers' low engagement with the typical research literature.

Borg (2009) identifies the incompatibility between teachers' conception of research and

their goals in reading the literature as another conceptual barrier. He surveyed 505 language teachers about what they consider quality research. Their definitions were aligned with conventional scientific notions of inquiry, valuing objectivity, statistics-based testing of hypotheses and variables, and the use of large samples. On the other hand, the same teachers stated that they turn to research looking for practical recommendations to enhance their classroom practices. Borg (2009) proposes that the teachers' restrictive definition of research explains why they find it "of little practical relevance", "dense", "dry" and ultimately shun it. In fact, the scientific literature that the teacher's value, is unlikely to propose the recommendations that they expect in a transparent language (c.f., Larsen-Freeman, 1998). Given that Borg's study was limited to teachers' perspectives without the provision for intermediary resources, it is not surprising they struggled to understand and interpret academic articles or failed to see any useful relevance to their practices (e.g., MacDonald, Badger & White, 2001).

At the organizational level, researchers and teachers seem to be positioned according to a number of binaries such as insiders vs. outsiders, experts vs. novices (Cochran-Smith & Lytle, 1999; Herrenkohl, Kawasaki & Dewater, 2010), which complicate the communication process and expose unequal power statuses. Allison and Carey (2010), for instance, speak of a feudal relationship between applied linguists and language teachers, a metaphor that captures both the hierarchical as well as the exploitative aspect of the relation. The authors explain that academics enjoy stature and recognition; they also rely on teachers as sources of data. The teachers' contributions to the research process are, however, undervalued. Ultimately, the academics' voice is the one heard and rewarded. Allison and Carey (2010) point out that the hierarchy may be imposed by institutional structures, but it is also internalized and accepted by the wider community that sees teachers in subordinate roles.

It may be argued that attitudinal issues underlie and, are in turn reinforced by, the factors identified above. Hattrup, Bickel and Gill (1993) explain how attitudes hindered the collaboration of academics and teachers trying to translate mathematical research into professional development materials for teachers. Researchers' desire to "empower" teachers by giving them access to simplified versions of research shaped the teachers' roles as passive recipients of knowledge, which in turn hampered effective communication. The authors explain that a real constructive dialogue between the two groups was made possible only when the teachers had the opportunity to contribute their expertise and negotiate the collaboration process.

The review of the barriers and challenges that hinder the transfer of research knowledge to practice suggests that teachers and researchers evolve in parallel but separate spheres, holding different goals, values and practices (Bartels, 2003; Nassaji, 2010; Kramsch, 1995). This, in turn, can create a linkage gap where communication between the two groups is hampered, leading to lost opportunities to: 1) Inform teachers' practices with insights gained from researchers; and 2) Apply researchers' efforts to address practitioners' immediate concerns. With a view to addressing the barriers to communication, an online environment was created for researchers and T/TCs to interact. The design of the online space was grounded in two theoretical frameworks: Lavis, Robertson, Woodside, Mcleod, and Abelson's (2003) knowledge transfer framework and Graham et al.'s (2006) knowledge to action framework, which offer practical steps to creating a common space to facilitate the exchange of ideas and expertise between researchers and practitioners.

Theoretical Frameworks

With the goal of increasing practical uptake of research evidence, Graham et al's (2006) knowledge to action framework includes a knowledge creation stage followed by an action cycle. Graham et al encourage users of the framework to consider Lavis et al's (2003) guiding questions (e.g., What should be disseminated? How should it be disseminated?) as applicable to the knowledge to action framework.

Applying the knowledge creation sequence as suggested by Graham et al, we (a) consulted with stakeholders (e.g., teacher educators, L2 consultants in three boards of education) to choose 6 pertinent articles and (b) created a support guide for each article that summarizes the research information in interview format for an easier,more accessible reading experience   (i.e., What should be disseminated?).

In the action cycle, we created an intervention in the form of an online space accessible to the T/TCs and the authors of the selected six research articles; we then monitored and evaluated the use of the forum by the participants (i.e., How should it be disseminated and with what effect?). The online forum housed the resources (i.e., articles, support guides) and provided a space for asynchronous interaction between T/TCs and authors.

We evaluated the interactions between the two groups of participants through a detailed analysis of the linguistic and ideational choices evident in the texts they posted on the forum.

Methods

The following sections describe the context of the study, the profile of the participants and the steps we followed in designing and creating the online forum.

Context of the study

The study is the result of a collaboration between several parties. CASLT commissioned the study and circulated a call for participation on its website and at L2 teachers' conferences. The Canadian Modern Language Review provided access to research articles for the participants. The second author designed and moderated the online environment housed at her university, which was created to facilitate interaction between the writers of six research articles (also research participants) in the field of L2 education and a group of T/TCs. She also helped recruit FSL teacher candidates from Faculties of Education in Ontario.

Participants

Authors of the six articles used in the forum were invited and consented to participate in this project as contributors and research participants. Three of the six selected articles were co-authored therefore; the researcher participants included ten researchers from four countries (Canada, Hong Kong, New Zealand, and USA) who are also teaching professors at the graduate and undergraduate levels. Three authors are senior teacher educators from Canada and abroad. They all have extensive research and publication experience.

Teachers (*n*=9) were recruited through distribution of project information at conferences. A second group (*n*=35) consisted of students in a Canadian post-undergraduate FSL teacher education program who consented to participate. Eventually, in addition to the ten researchers,

52 T/TC participants had access to the password-protected forum, 34 of whom contributed to the discussion forum, the majority (*n*=25) were TCs.

Creation and use of common space

The on-line forum created for this project operationalizes two main precepts of the two Frameworks cited above: (a) creation of an easily accessible environment with the creation of a discussion forum and (b) provision of intermediary tools with the provision of guides to accompany the research articles.

  The online space, a password protected website created for the purpose of this project, provided a forum to allow interaction between the researcher and T/TC participants for a week per article. For six consecutive weeks, one article was featured on the forum, each week. The T/TC participants and the author of the week's article could interact asynchronously to discuss any aspect of the published paper. Posting once a week in the forum was a graded course requirement for the teacher candidates but there were no constraints on the number or length of messages they could post.

  Evaluation of the outcomes of the project took several forms. In the present paper, we mine all the forum messages (i.e., new posts as well as replies and comments to previous posts by other participants) posted by both groups. The conversations that took place in the forum produced a corpus of electronically accessible texts, which reflect crucial aspects of the linguistic and ideational choices that the two groups chose to adopt while interacting together. The following sections describe how the forum corpus was analyzed to determine whether T/TCs and researchers pursued a common agenda as they interacted.

The forum

Table 1 shows that in total, 122 messages were posted over the six-week period and that teachers posted more often and mainly in French.

Table 1

Number and Type of Forum Contributions

	Language Used		
	French	English	Total
Teachers	99*	3	102
Researchers	6	12	18
Moderator	2	_	2
Total	107	15	122

*Teachers may have chosen to use French to correspond to their language use in class.

Analysis procedure

The research questions were addressed through (a) a comparison of the keywords used by the

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researchers in their forum posts and their original articles, (b) an analysis of the number and type of references made by the teachers to the researchers' texts, and (c) an in-depth examination of the most frequent words used by the two groups of participants (T/TCs and researchers).

File preparation

The project participants had access to two types of texts, (a) the articles published by the researchers, and (b) the messages posted by the participants to the forum. The two text types were 'altered' in different ways to allow the automated quantitative analysis by the text analysis software *WordSmith* (Scott, 2012).

Published articles: Acknowledgements, abstracts, tables and reference lists, data excerpts/quotes and bios were removed from the text because they represent different genres (c.f., Hurt, 2010). In total, this subcorpus of published texts consisted of 27057 words in English (Articles of weeks 1, 3, 4, 6) and 13039 words in French (Articles of weeks 2 and 5).

Forum messages

The messages were proofread, and minor spelling mistakes were corrected. Quotations from the published articles or from other messages were deleted.

Corpus size and manipulation

Two sub-corpora constitute the data for the following analyses: the (altered) published articles and the posted forum messages, with a total of 73254 words. The project corpus was further divided into several sub-corpora according to the identity of the text author (teacher vs. researcher) and language used (French vs. English). The analyses will investigate the characteristics of *all* the texts written by *one single* author (keyword analysis), and the features of *all* texts written by a group of participants (e.g., all T/TCs).

Most T/TCs chose to write in French. Some researchers wrote and interacted in English, others in French, and others communicated in both languages. Consequently, for the keyword analysis that compares keywords used by the authors in their published articles and their forum messages, a decision was made to discard the work of the authors who published in English but interacted in French on the forum because we can't compare texts in two different languages (Author 1 and 4).

Word frequency

For the present project, four frequency lists were generated. A frequency list was retrieved from: (a) all forum messages written by T/TCs in French, (b) all forum messages written by T/TCs in English, (c) all forum messages written by researchers in French and (d) all forum messages written by researchers in English.

Keyword analysis

The keyword tool in *WordSmith* compares frequency lists generated for two sets of files, a target corpus and a reference corpus, and identifies words that occur significantly more frequently in the target corpus based on the norm established by the reference corpus (Romer & Wulff, 2010). Baker (2006) argues that the keyword list is a measure of 'saliency' while the frequency word

list is simply a measure of 'frequency'.

Each of the words on the keyword list is assigned a keyness value, which estimates the keyword strength. Baker (2006) advises that keyword analysis results should be supplemented by concordance and collocational analyses to obtain a better understanding of the value and role of the salient words identified in context. Concordance analysis shows the target word in context. Collocation analysis shows the words that typically co-occur with a target word and the frequency and strength of the relation between the two items.

FINDINGS

To answer the first research question as to the impact of the online environment on researchers' language use, we conducted keyword analysis to compare the researchers' language use when writing for publication and on the forum. For this analysis, the texts of the forum messages written by each researcher were run against a reference corpus composed of the text of the article published by the same researcher (N=4; 2 articles were excluded).

The *Wordsmith* analysis showed differences in the writings of three researchers, namely Author2, Author3 and Author5. Table 2 presents the identified keywords, their frequency in the forum posts of the three authors and the Keyness value of each word.

Table 2

Keywords Used Significantly More Often in Forum than in Articles.

Author2			Author3			Author5		
KeyWord	Frq	Keyness	KeyWord	Frq	Keyness	KeyWord	Frq	Keyness
Vos(your)	6	32.32	Learn	15	31.36	I	7	36.51
			We	14	31.35	Important	7	24.75

We first noted that three out of the five terms are pronouns, which seems to indicate a less formal, more direct style. This is hardly surprising given the genre difference (article vs. forum post). What is interesting is the use and function of these pronouns.

In the case of Author 2, two researchers co-authored the published article and they posted one individual message each. They used the possessive pronoun "vos" (plural you) to acknowledge and/or praise the contributions as illustrated in the following excerpts.

"De plus, j'aime bien vos soucis pour le vocabulaire." [2RC07F]

(Also, I appreciate your concern for vocabulary)

"Vous m'impressionnez avec vos observations perspicaces." [2RC07F]

(You impress me with your insightful observations)

These instances suggest that the researchers acknowledged the social aspect of the forum exchanges and engaged in a virtual conversation with real interlocutors. In one message, Author2 quoted the message of a teacher and elaborated on her argument, which created a sense of an ongoing conversation with multiple turns.

"Comme [TC name], j'aime beaucoup les stratégies comme le pense-partenaire-partage et le jigsaw." [2RC10F]

(Like [TC name] I like strategies such as think-pair-share and the jigsaw)

There was one instance where one of the researchers for Week 2 offered advice to the T/TCs. This quote is written in a style that is unmistakably non-academic (cf., use of the imperative, casual punctuation, sentence structure). Also, it shows that the researcher had a distinct perception of the teachers as real addressees (unlike the rather undefined audience of a journal article) and acknowledged aspects of their professional identities by offering advice that would help them improve their teaching practices. .

"Je vous encourage de bien travailler le vocabulaire avec vos élèves [...]travaillez des stratégies comme l'identification de mots connus." [2RC07F]

(I encourage you to work on vocabulary with your students [...] work on strategies such as identifying known words)

Author 3 was unique in that she addressed each teacher by name and commented on their previous post, answering questions, elaborating ideas, suggesting further reflections and offering references, which again indicates an awareness of the social aspect of the forum space, and a desire to mark an active social presence (Rourke, Anderson, Garrison, & Archer, 1999). However, when we looked at the context where these terms were used, we noted a caution and some distance in addressing the T/TCs. For instance, only one instance of the use of the word "learn" referred to teachers learning while all the other uses referred to language learners in a classroom context. As illustrated in the following excerpt:

"L2 teachers really have to learn enough about the area and to get some real experience in it so that they can use it to help students learn." [3RC10E]

Author 3 seemed to avoid addressing the T/TCs directly and used a general reference (i.e., L2 teachers) instead. Therefore, it seems that Author 3 was cautious to not direct the participants as to what they "have to learn", but preferring instead to make a general statement encouraging all L2 teachers to learn. We identified two referents for the pronoun "we" as used by Author 3 in her messages. In one instance, the author referred to herself using the plural pronoun.

"We're not saying that students' language production may be impeccable all the time. It all depends on what purpose students' language use serves." [3RC22E]

She also used the pronoun to signal her membership in specific groups. In one instance, she used 'we' to refer to the L2 research community in Hong Kong.

" An alternative strategy that we suggest teachers in Hong Kong to use is to allow students' discussion in L1 (…)." [3RC22E]

Author 5's use of the term "important" in the citation below seems to indicate a less formal or careful style. In fact, he used the term in three consecutive sentences, a repetition that would hardly be tolerated in academic writing.

"I agree that encountering words in many contexts is important. This is one reason why extensive reading is so important. Providing many opportunities for learners to use the words is also important for developing productive knowledge." [5RC09E]

He used the first personal pronoun mostly to express agreement (N= 5) with the T/TCs' posts or to present opinions and positions (N=2).

"I agree that learning vocabulary should be interesting for students." [5RC02E]

"I think a key here is planning to review these words at multiple points in the course." [5RC11E]

The keyword analysis suggests that authors adapted their register to the social requirements of the forum space. However, these adaptations are surprisingly minimal and limited to three researchers. One researcher seemed ambivalent about how to navigate the forum space. She acknowledged the presence of the teachers and recognized their contributions to the debate but was cautious about how she addressed them. Ultimately, a certain distance was maintained and the overall tone remained distinctly academic. For instance, several researchers offered reading lists and referenced their statements in an academic way. Author 3, for instance, provided the T/TCs with several references to consult and ended one of her posts referring to a framework that she developed, which is a reminder of her status as an experienced researcher. Author 2 closed her message wishing the teachers the best in *their* discussions, which, we believe, suggests that the researcher saw herself as a guest, with a limited role, rather than a partner in a conversation. The forum was essentially the teachers' space.

"Bonne continuation dans vos discussions." [2RC12F]
(Good luck with your discussions)
Teachers' Response to Published Articles, Researchers' and other Teachers' Forum
T/TC online responses. The following paragraphs will explore the T/TCs behaviour in the forum space. We will examine how the teachers responded to each of the available texts: the original published articles, messages posted by other teachers and messages posted by the guest researcher of every week.

T/TCs' responses to researchers' messages

There were only two instances where the T/TCs addressed the researcher directly; both occurred in Week 4. In the first instance, a TC addressed Author 4 by name at the beginning of his message therefore giving the forum message the format and tone of a personal letter to the author. In the second instance, a teacher thanked the researcher for her contributions to the field, and answered a question that was posed by the researcher in a previous message. This teacher knew the researcher personally and was, in fact, the instructor of a group of TCs. Apart from these two instances, there was no direct communication from the T/TCs to the authors. Even when researchers responded to a teacher by name, the T/TC did not write back. This seems to indicate a certain reluctance to interact directly with the researchers or acknowledge their presence in the same space.

T/TC' responses to published articles.

T/TCs did respond quite actively to the articles, often referring to them as "article", "study", or by naming the authors by last names as one would cite an academic paper. Table 3 shows the patterns of references to the six published articles, and identifies the types of statements that were taken up by the T/TCs.

Table 3

Number and Type of Reference to the Published Articles in Teachers' Messages

	Week1		Week 2		Week 3		Week 4		Week 5		Week 6	
	N	%	N	%	N	%	N	%	N	%	N	%
Total Number of posts	6		11		32		24		20		26	
Number of posts with clear references to article	3	50[a]	8	73[a]	13	41[a]	17	71[a]	9	45[a]	11	42[a]
Number of references	8		37		51		59		17		41	
Types of reference												
Direct quote	1	12	3	8	5	10	16	27	6	35	4	10
Agreement	3	37	14	38	11	22	12	20	4	23	7	17
Elaboration	6	75	24	65	34	67	37	63	9	53	30	73
Types of statements taken up												
Rationale	--	--	9	24	18	35	26	44	10	59	3	7
Design	--	--	22	59	--	--	3	5	--	--	--	--
Data	4	50	5	14	13	25	28	47	--	--	29	71
Discussion	4	50	1	3	6	12			7	41	9	22
Conclusion	--	--			14	27	2	3	--	--		

A Percentage of messages that contained references to the article (i.e., Number of sources/ Total number of posts for the week) All other percentages are calculated in relation to

the total number of references (e.g., Elaboration in first week = 6/ Total number of references for week 1)

Three main findings emerge. First, 41% to 73% of the messages contained clear references to the article. T/TCs seemed to be more comfortable dealing with the academic persona of the authors. One possible explanation is that the teachers, who are familiar with writing critical responses to research articles retracted into that discourse and avoided engaging directly with the authors because they were not confident about what rules and conventions to use in that new situation.

Second, the T/TCs referred to the articles in three main ways: by quoting the authors verbatim, by expressing agreement with a statement and by elaborating on an idea or a statement.

Direct quote: "Comme indiqué dans cette étude "careful planning for integrating content-language is important ([Author3], 2009)".

(As indicated in this study […])

Agreement: …une façon que je crois pourrait aider les jeunes à surmonter ce défi, tout comme [Author 3] nous suggère dans l'article. [3TC07F]

(…one way that, I think, could help kids overcome this challenge like suggested by [Author3] in the article)

Elaboration: "Reading the article's title immediately makes me focus on the desire to know what kind of education would be encouraging to our work […] because although this study was based in […] Chinese contexts, it may well be applicable to any educational context." [3TC32E]

As Table 3 shows, elaboration (53%-75%) and agreement (17%-38%) were the most common types of reference while the number of direct quotes (8%-35%) was relatively low. We also noted that there is an inverse relationship between the rates of reference types, especially clear in the case of the discussion of Week 5. Actually, Article 5 reports on a quantitative study

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the effects of pre-learning vocabulary on reading and writing performance and, therefore, included detailed statistical comparisons. It was possibly one of the most complex readings of the project. In turn, T/TCs seemed to be particularly cautious when dealing with this text, preferring to stay closer to the original (i.e., direct quotes), finding fewer opportunities for elaboration, and connections to lived experiences.

Generally, however, the high rate of elaborations indicates that T/TCs tended to appropriate the statements proposed in the articles by giving them personal meanings and significances. They seemed to translate the statements of the articles into teaching recommendations, using their lived experiences as a supporting reference, thus making the article's content more accessible and immediately relevant.

Third, the teachers were selective in the statements that they took up from the publications. A statement is defined as an idea unit from the article. In fact, we segmented the six articles into statements (N=35 to 79 per article) and coded each teacher reference to the article for the exact statement that the teacher was using. Table 3 shows that T/TCs commented mostly on statements presented in the discussion sections of the articles, where authors usually offer summaries and recommendations for practice.

The design section was the least commented on part except in the case of the article of Week 2 where the design section explained teaching scenarios. This is, in fact, another example that illustrates the central presence of the article in the forum and its role in shaping the content and focus of the T/TC' messages. In this regard, the articles seemed to have a more powerful and direct impact on the discussion than the researchers' contribution to the forum because the T/TCs responses were based on the articles.

Interaction among teachers

The interaction among teachers took several forms such as quoting or referring to previous messages; expanding on colleagues' arguments, thus giving a continuity and coherence throughout the message thread of each week.
Comme [TC name] a mentionné, tous les élèves dans nos salles de classe sont différents. [6TC14F]
(As [TC name] mentioned, the students in our classrooms are different.)

Je suis tout en accord avec « [TC name] » quand elle parle de l'application de UDL […]
Je suis en accord avec «[TC name] »; oui, c'est important de regarder aux IEPs [4TC08F]

(I agree with [TC name] when she talks about the application of UDL […] I agree with [TC name]; yes, it's important to check IEPs)
They also posed questions to engage the other teachers in conversation or redirect the debate:

[J]e ne voudrais pas qu'une minorité nuit à l'apprentissage de la majorité. Est-ce une mentalité défaitiste?" [4TC13F]

[I would hate to see a minority affect negatively the learning experience of the majority. Is that a defeatist attitude?)

"Y aurait-il alors des directions différentes prises par l'éducation ou ai-je totalement

tort?" [4TC01F]
(Would there be different directions to be taken by education or am I totally wrong?)

We also noted a few cases where teachers did not hesitate to disagree with their colleagues. "Je crois que je ne suis pas tout à fait en accord avec [TC name] quand il dit que (…)." [4TC14F]
(I think I don't really agree with [TC name] when he says (…))

Agendas of teachers and researchers

A frequency list analysis was run for all the teachers' French and English messages and all the researchers' French and English messages. Table 4 below presents the first three most frequent words in each group of messages, after the elimination of all function words (i.e., determiners, articles). For this report, three tokens (students/ élèves; *je* as used by the teachers writing in French; *nous* used by the researchers writing in French) were investigated in detail by running concordance and qualitative analyses.

Table 4

Frequent words used by the participants in their posts

	Teachers				Researchers			
	French		English		French		English	
Rank	FRQ	Word	FRQ	Word	FRQ	Word	FRQ	Word
1	380	Elèves	10	students	23	élèves	39	students
2	339	Je			18	nous		

For the subsequent sections, we report findings per groups including numbers for both French and English messages.

Students/ élèves

The frequency of reference to students/ élèves was comparable across the writings of teachers and researchers. We conducted an in-depth manual analysis to identify the ideas/themes expressed in the sentences that contain these tokens.

Table 5 shows that both T/TCs and researchers wrote about students in a general sense, usually referring to L2 learners in a classroom context. It also shows that both groups made a few references to the student participants in the article of the week. T/TCs did refer to their own students, as well, often to recount anecdotes and give examples to support their arguments.

Table 5

Reference of the Words Students/ Élèves

	Teachers		Researchers	
	FRQ	%	FRQ	%
General	307	79	46	92
Own students	48	12.5	0	
Student participants in study	34	9	4	8
Teachers	1	.25	--	--

Analysis of the sentences containing the tokens Student/élèves by both teachers and researchers revealed five recurrent themes:
   a. conceptualizations of the teacher's responsibility in facilitating student learning,
   b. conceptions of what learning entails and how it happens,
   c. reflections on the past and/or future classroom practice and experiences,
   d. reference to the student-participants in the article,
   e. categorizing students according of one identity aspect.

Using Nvivo 10, a research assistant coded 10% of the data, and inter-coder agreement was 80%. Table 6 below shows that teachers and researchers attended to all the themes but to varying degrees. T/TCs seemed slightly more concerned with defining teachers' roles and responsibilities than the researchers while the researchers focused relatively more on characterizing the learning process. Also, T/TCs referred more often to classroom experiences, than did the researchers. Table 6 suggests that while T/TCs and researchers shared a concern for optimizing learning for students, they differed in the stance they adopted (defining responsibilities vs. defining the learning process.

Table 6

Themes Associated with the Use of the Words 'Student/ Élèves

	Teachers		Researchers	
	FRQ	%	FRQ	%
Teacher roles and responsibilities	163	38.5	13	25
Conceptions of learning	145	34.5	24	46
Past/ Future classroom experiences	43	10	1	2
Reference to article	20	5	3	6
Categorizing students	54	13	11	21

The T/TCs seemed focused on the demands of their careers. Their statements mostly, had an authoritative tone to them, conveyed through the use of expressions such as "*il est très important de*" (it is very important to), "*c'est notre tâche de*" (it's our job to), "*les enseignants doivent*" (teachers must), "*il est impératif*" (it is imperative).

These statements suggest that the T/TCs used the forum space to project a strong professional identity and express their ideas on what works in the classroom. A similar authoritative and confident tone characterized their statements about conceptualizations of learning.

"It is better to seek lessons in cycles and not in a linear fashion as students

will have greater opportunity to learn significantly." [3TC32E]

On the other hand, the researchers' reflections on actual teaching practices were less frequent and overall more hedged. They used expressions such as "*It'd be helpful if*", "*it's most useful if L2 teachers can*", "*an alternative strategy that we suggest teachers to use*". Overall, the researchers did not seem to 'teach' the T/TCs what to do or how to do it. In general, teachers and researchers seem to have maintained distinct positions while interacting in the forum space, reinforcing the typical interests usually associated with each group.

First singular pronoun Je

The pronoun "je" (I) was the second most frequent token in the French teacher messages. *WordSmith* collocation and cluster analyses revealed that "je" occurred typically in three recurrent clusters: "je pense que", "je trouve que" and "je crois que" (I think/ I believe). A manual coding of the themes associated with "je" found that the pronoun was used to introduce opinions, express agreement, or (and most interestingly) to report on lived classroom and personal experience.

T/TCs used the forum space to voice their opinions about the relevance and effectiveness of certain teaching practices. They adopted a confident tone and did not hesitate to sanction or critique certain practices, often relying on the understanding and insights they gained from their experiences as language learners and/or teachers as support.

"Je crois fermement à la valeur des jeux." [1TC01F] (I strongly believe in

the value of games)

Teachers referred to the article of the week, either to build on the arguments advanced by the researchers or express agreement.

"Je l'ai trouvé un peu surprenant d'entendre que les professeurs

d'immersion négligent souvent l'intégration de la langue". [2TC12F]

(I was surprised to hear that immersion teachers often neglect language

integration).

The findings reported in Table 7 reveal a central position of the articles as a point of reference for the conversation. In fact, there were 69 instances where T/TCs expressed a positive opinion about the content of the article and 42 instances where the teachers underlined their agreement with a certain statement in the article (there were however, three instances of disagreement with the authors/articles related to issues of practicality and transferability to the classroom).

Table 7

Themes Associated with the Use of "je" in French Teachers' Messages

	FRQ	%
Express opinion/position	241	43.5
Article	69	
Teaching practices	190	
Other posts	9	
Classroom practices	123	22.5
Past	54	
Present	44	
Future	36	
Personal experience	119	21.5
Agreement	67	12
Authors	42	
TCs	31	
General statement	4	

First plural pronoun 'nous'

Table 8 presents the analysis of the use of the pronoun 'Nous' (We) in six contributions posted by researchers in French. The researchers used 'Nous' to refer to themselves, their co-authors and research team, mainly to discuss aspects of their published study. There were only two instances of 'nous' used as a general referent, and one reference to all the forum participants by a researcher who was also the moderator of the forum.

Table 8

Referent of Pronouns NOUS

	Researchers	
	FRQ	%
Reference		
Research team	7	44
Co-Authors	5	31.5
General	3	19
Forum	1	6.5
Research	14	87.5
Express position/ opinion	6	37.5
Article	4	
Practices	2	

Table 8 also shows the themes associated with the use of the pronoun 'nous'. The authors referred mainly to the research reported in the published article, mainly to explain some of the procedures or quote findings.

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The following section summarizes and discusses the findings with reference to the conceptual frameworks of Lavis et al. (2003) and Graham et al. (2006).

Discussion and Conclusion

There is consensus in the literature (e.g., Graham et al, 2006; Cooper, 2010) on the need to identify, understand and then address the different types of gaps that exacerbate the distance between researchers and teachers. This project is based on the assumption that there is a linkage gap between teachers and researchers caused by differences in agendas and a lack of physical space to bring the two communities together. The project aimed to reduce this gap by creating a virtual space to facilitate communication within and between each group on issues of immediate relevance to the participants.

   The findings indicate that researchers were aware of the social aspect of the forum space and adjusted their language accordingly. They specifically, acknowledged the presence and contribution of the teachers. However, although an online forum may have provided a medium for less formal interaction, the researchers maintained their distance and remained cautious not to tell teachers what to do, preferring instead to make general recommendations based on their research findings (e.g., Researcher 3 cautious use of 'learn' in reference to a general audience and not the T/TCs) and maintained a distance as evidenced by the language they used and how they used it. It is important to note, however, that these findings must be interpreted cautiously due to the limited number of researcher contributions. It would be advantageous for future research to gather more in depth qualitative data to bolster the findings. It may also prove beneficial to ensure articles and interactions are all in written in the same language for research purposes.

   The T/TCs, on the other hand, seemed reluctant to acknowledge the researchers' presence in the same space. In fact, the published articles formed the nucleus of the conversations. This is consistent with the findings of a questionnaire administered at the beginning of the project and reported on elsewhere (Mady, 2013) in which teachers stated that unknown quality of research, availability of research articles, datedness and lack of transferability to their contexts were the main reasons impeding their use of research. It seems that given the project addressed all these issues by providing access to carefully selected high quality peer-reviewed articles recently published in the Canadian Modern Language Review, the teachers welcomed the opportunity to reflect on the articles and translate their theoretical recommendations into actionable messages (cf. the high rate of elaborations that built on published statements and integrating actual classroom experiences). The translation process was grounded in the T/TC' personal experience as language learners and professional expertise gained through classroom practices. In consideration of the question what to transfer to practitioners to encourage research uptake, Lavis et al (2003) suggest that researchers and/or intermediaries recommend actionable messages that can be taken from the research. In this study's context although actionable messages were provided in the support guides the T/TCs preferred to focus on the original articles and translate the information into practical implications for themselves providing direct links to their own experiences.

   The actual presence of the researchers in the same space did not seem to encourage researcher/T/TCs interactions. Even when researchers addressed T/TCs by name, the T/TCs chose not to write back. The frequent word analysis revealed that T/TCs and researchers had slightly different agendas when writing for the forum. Unsurprisingly, teachers were more

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concerned with defining their future practices as supported by other research (e.g., Pennycook, 2005) while researchers focused on defining and supporting their own conceptualizations of learning.

Finally, the present paper aimed to evaluate the project for its usefulness in reducing the linkage gap and, more broadly, the project's operationalization of the Lavis et al. (2003) and Graham et al. (2006) frameworks. The findings seem to indicate that the 'creation of knowledge' step, in particular the selection and provision of selected articles, was the most successful aspect of the project, as it has succeeded in the provision of a body of research that met the T/TCs' needs and expectations, whereas the action cycle, the creation of the online discussion forum, in particular, appeared to have limited impact in facilitating effective and meaningful communication between the teachers and the researchers. We believe that several logistic issues contributed to this limitation. For instance, we were not able to arrange synchronous communication; the one-week timeline may have been insufficient to help the T/TCs develop a rapport with the researcher; T/TCs were not provided with sufficient scaffolding to interpret articles. Future research might meet with greater success if T/TCs work with researchers collaboratively to seek solutions to a shared concern thus minimizing the difference in roles that may have been highlighted in this context where the researcher was positioned as a guest and expert in the space. Such a future project could better position the researcher and teacher (s) as collaborating learners. However, we propose that it is also possible that the notion of a 'meeting space' might not be necessary for knowledge uptake when the relevant type of research is made available. That is to say that when provided with research articles on topics of interest teachers are able to take the information and make it applicable to their context without interacting with the researcher directly.

We do not see this lack of meaningful communication between L2 researchers and T/TCs as a failure for the project. We subscribe to the idea proposed above that teachers and researchers do in fact value different kinds of knowledge and pursue different objectives when reading the research. The teachers in our project used the knowledge presented to them to create their private knowledge base and tried to integrate it with their previous learning/teaching experience and their conception of their future practices. In that sense, the project achieved its goal of facilitating meaningful interaction with research.

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