

## Supplemental Text S1

### Mixed Specifications about CC

Another theme entitled mixed specifications about CC (n=22, 25.88 %) employing miscellaneous study designs [37] from the different research methodologies quantitative studies, mixed methods studies, and qualitative studies have been regrouped together for all the articles fit in the inclusion criteria as illustrated in *Methodology* for they either mention or investigate CC in their own distinctive ways. The following studies have been regrouped in this manner as the articles appeared mixed in nature and it was challenging to classify and sort in a specific cluster. Nonetheless, these articles seem to provide valuable and supplementary information in shedding some light on the manner CC or CLA has been used and developed in the course of the past 50 years. Consequently, it remains an important section in the research synthesis that could provide evidence on the definition as well as the operationalization of CC and its implications for second language acquisition (SLA). Hence, the focus on the denomination mixed specifications which refers to the various manifestations of the construct under study.

Using qualitative approaches to research, the following articles attempted to provide a definition to the construct of CC. First, Holmes [114] set out to analyze the differences between genders and its impact in some sociolinguistic and pragmatic aspects of a particular speech act which is the apology. Holmes [114] through an ethnographic study examined in a corpus study the manner the language learner acquired CC through features of the distribution of apologies as well as the functions they may serve. Through Hymes [11] analysis of speech act, the researcher discussed some evidence of gender norms in the utilization of speech acts like apologies stating that the capability to utilize and interpret remedial exchanges aptly is a complex feature of CC.

Second, Pomerantz and Bell [115] discussed the concept of CC in relation to symbolic competence [15] in a foreign language class of advanced Spanish with a focus on humor as a communicative mode and its role in classroom interaction by interviewing and taking field notes of the participants. Third, Lee [79] employed conversation analysis to explore an L2 classroom interaction that were audio and video taped to propose a respecification of CC by demonstrating that the construct becomes accessible in action; rather than being chiefly obtained through components like grammatical or discourse competence. In addition, the analyses showed that CC is a conditional resource for language learning and teaching.

Similar to Holmes [114] and Pomerantz and Bell [115], Hornberger [11] conducted ethnographic research by describing a series of speech events, notably the negotiation of a driver's license in Peru, that was carried out in Spanish. Data was collected and analyzed in the light of Hymes' model of Speaking with an emphasis on their appropriateness, possibility, feasibility, and occurrence. Interestingly, the study also explored the speech event in conjunction with Canale and Swain [4]. By comparing and contrasting both models [4, 11], the author concluded that, Dell Hymes provided a model that is truly apt for comprehending the acquisition of L2 communicative competence. For instance, Hornberger [116] stated that despite the integration of grammatical, sociolinguistic, discourse, and strategic competencies, Hymes's model is better at accounting for aspects of CC in the speech events such the dimension beyond the control of the user, feasibility and ability of use than Canale and Swain [4].

Third, another article [98] employed a conversation analytic approach to debate on findings that emanate from video-taped data of actual group interactions. The data gathered related to speaking assessment tasks which comprised of group oral discussion and individual

presentation centered around topic negotiation. The authors reported that topic negotiation required not only linguistic competence but discourse competence as well.

Fourth, Leung and Lew [117] undertook investigation through content analysis [118] of audio and video taped data collected within university and secondary classroom settings. They aimed to examine the extent to which the Common European Framework of References for languages (CEFR) is truly representative of language proficiency. Conceptually, it is stated that the CEFR descriptors are concerned with components of CC namely, linguistic, sociolinguistic and pragmatic competence. The researchers claimed that the collected empirical data was visibly more contingent and complex than the well-known conceptualization of CC has indicated.

Additionally, Warner and Chen [119] undertook a case study and carried out an interpretative analysis of Facebook conversations of three Facebook users. The participants were academic researchers who carried out their personal and professional lives chiefly in both German and English languages. The findings are presented in terms of tendencies in conversational practices.

In another study, Siskin and Spinelli [105] incorporated Canale [3] model to undertake a close analysis of a number of routines and gambits in telephone conversations carried out in Spanish and French by demonstrating that these aspects of speech play an important role in all four areas of CC for routines and gambits, as speech acts, improve knowledge of linguistic, sociolinguistic and discourse competence.

Drawing on sociocultural theory, Chang and Liu [120] employed three data collection methods which incorporated a stimulated recall session, a semi-structured interview and an oral elicitation task to investigate 8 high school students. The aim of the study was to determine the communication strategies of the participants who possessed L1 Mandarin and L2 English. The results revealed the situated and social nature of direct, indirect and interactional strategies in the speech of participants.

Finally, Ferrada and Del Pino [121] portrayed CC in another perspective asserting that CC could be understood as a speaking skill. The authors proposed that speaking proficiency, portrayed as collective dialogue, should become a requirement to incorporate in the training of teachers in the context of the community they reside. The results underscored the considerable difference between school teachers and university teachers in terms of the development of this language skill.

In regards to quantitative research methodologies, Gablasova et al., [122] studied pattern in L2 expression of epistemicity based on three lexico-grammatical categories by employing four speaking tasks which include one monologic presentation and three interactive tasks. The results of a repeated-measures ANOVA indicated that the speaking tasks have an effect on the epistemic markers used by the L2 speakers. In another article, Graus and Coppen [123] aimed to find out, by using a form-focused framework, the way teachers and students articulate their cognitions in the wake of grammar instruction reporting to acquire advanced communicative competence and linguistic correctness, isolated grammar instruction is a necessity. Conversely, Yamazaki [124] presented her findings in the context of introducing a new instructional approach related to computer assisted language learning where university level students in Japan participated in an email survey. The exploratory study revealed that participants developed contextualised communicative competence which is defined as the acquisition of various capacities relevant to a specific situation such as awareness of audience and persuasive talk.

In terms of mixed method studies, the following papers, Morell [125] used questionnaires to gauge the communicative practices and attitudes of EFL language learners in university lectures in Spain, through comparative analysis, in order to understand the role of interactive learning which included linguistic features such as discourse markers, personal

pronouns, questions and negotiation of meaning, in influencing CC. Powell [126] investigated CC in the context of French language class by interrogating 233 participants during individual oral interviews and reported findings an emphasis of the usage of correct grammatical forms. Beaulieu et al., [127] studied the development of learner's meta-sociolinguistic reflections based on three sociolinguistic variables through a thematic analysis to find commonalities and patterns, in a large French medium university in France. Findings suggested that participants have developed the ability to notice sociolinguistic resources and they perceive the development of productive and receptive sociolinguistic knowledge. Nonetheless, in an exploration of sociolinguistic competence Ranney [128] did not discuss this particular component in relation to the conventional models of CC. Rather, the investigator examined the speech event in the context of a medical consultation in the US where data was derived from interviews and a discourse completion task for pertinent speech acts which was combined with the script data to depict a multi-faceted picture of sociolinguistic knowledge in regards to a single speech event. Findings are underscored as per NS norms and NNS norms. Del-Moral and colleagues [129] reported that the focus of their research was placed on evaluating the change perceived in students' communicative and digital competence as per teachers' perception. This instrument employed in this context was designed to assess linguistic, discourse and sociolinguistic competence operationalized as vocabulary, punctuation, spelling, verbal tenses, intonation and pronunciation; written text for digital storytelling creation; and adopting a proper register suited for the narration respectively. The results demonstrate that according to the teachers the participants improved in their oral and written competence. Trinder [130] in a survey study collected qualitative and quantitative data from students who reported their preferences on language learning and teaching environments as well as the utilization of technologies.

Altogether, it has to be noted that there is no consistency with the findings amongst the studies that claim to be mentioning and using qualitative, quantitative and mixed methods to analyse the construct of CC. The results generated for the theme "Mixed Specifications about CC" are sample-specific and do not follow a similar line of investigation, hence, the difficulty in clustering together the articles subsumed in this theme.

## Supplemental Text S2

### Tests and Measures of Communicative Competence

Subsequent studies in the cluster have also claimed to assess CC through listening comprehension test and oral production tests [85] where two Spanish classes were examined with the principal emphasis of the experiment being the assessment of an increase in oral production as a consequence of exposure to authentic video. Thus, the principal component of the pre- and post- testing battery was the measurement of oral communicative skills. In terms of the assessment of communicative competence, the tapes were evaluated on a scale of 0 to 5 in five categories. The categories were established to denote the five most prominent characteristics making up communicative competence, based on the model proposed by Canale and Swain [4], as well as on their inclusion in the ACTFL Oral Proficiency Guidelines. They were operationalized as follows: confidence in speech, scope and breadth of response, style/flow of response, effectiveness of message and communicative techniques. After conducting a one-way analysis of variance (ANOVA), findings point out that the highest increase in the experimental group's communicative competence at the end of the study was for the category confidence in speech. The measurement of the participants' confidence in speech was founded on the assurance that they proved in speaking Spanish, regardless of their grammatical accuracy. In general, the data show that not all the component parts of the major category communicative competence are equally impacted. Weyers [85] posited that this finding is substantial, as the term communicative competence usually

“appears to be used as a catch-all referring to an assumed single, indivisible skill that all people can acquire if exposed to the same situations” (p. 347). Therefore, this study demonstrated that this general belief to be inaccurate.

Further, one substantial article, Gilmore [77] requires to be highlighted in the data set. By conducting a quasi-experimental study employed a one-way between-groups analysis of covariance (ANCOVA) to compare the effectiveness of the two different interventions, textbook input and authentic input, designed to develop students’ communicative competence. In the study, the principal investigator qualified and defined the construct of CC as a model with 5 inter-related components. Hence, the construct of CC which was operationalized with a batch of eight different tests namely a listening test, a pronunciation test, a C-test, a grammar test, a vocabulary test, a discourse completion task, an oral interview, and a student-student role-play attempted to investigate the multiple competences in the models of CC, such as linguistic competence, discourse competence, sociolinguistic competence and pragmatic competence as well as the four language skills. The results from the ANCOVA suggest strongly that after statistically controlling for differences in proficiency levels between participants, learners receiving the experimental treatment (authentic materials) developed their communicative competence to a greater degree than those receiving the control treatment (textbook materials). Gilmore [77] stated that by performing separate statistical analyses on each of the various tests utilized in the trial could, to a certain extent, distinguish the individual components of communicative competence and determine exactly how the two groups diverged from each other after the intervention implying that the associated tasks within the authentic materials contributed significantly in developing a broader range of communicative competence in the learners. By extension, it could be claimed that the results stemming from Gilmore [77] corroborates to some extent with Weyers (1999) in that CC is not a one size fit all construct. Rather, given its multifarious nature with multiple features and component, it could provide some insights and evidence to support discriminant validity [131] which is a prerequisite to construct validity.

In contrast, Fischer [81] implemented a rating scale with the aim to explore a particular aspect of CC like written communicative competence in French Language which is much different from the components derived from established models CC. Findings are presented in terms of differences between native speaker students’ and teachers’ ratings of a student text. As such, the rating’s scale ability to evaluate students’ written performance which corresponded largely to the native speaker’s overall judgement of quality. Likewise, Savignon [83] proceeded to assess writing skills through the practice of dictation as a measure of CC which in the study is associated to measures of grammar and spelling. According to the author, dictation could be perceived as a valid placement and proficiency test for second language learners therefore it has been proposed as an indirect measure of functional language skills. Therefore, the results demonstrate that it would seem that dictation exercises are viewed by learners as a reasonable evaluation of communicative ability.

Other noteworthy educational tests that were utilized was the TOEFL iBT is a speaking test that aims at measuring test taker’s ability to communicate in English as per what they have heard and read. The objective of this study [74] was to investigate how well tests of speaking ability, such as the Speaking component of the Test of English as a Foreign Language (TOEFL), relate to the ability to communicate. 555 undergraduate students listened to speech samples from 184 examinees who took the TOEFL iBT. Through the validation obtained by expert raters, the authors posited that the findings from this paper indicated robust evidence in supporting the validity of TOEFL iBT scores as a measure of oral communicative competence. Also, the measures involved in the TOEFL iBT echoed and seemed to substantiate the thoughtful explanation of CC provided by Bachman [1] and Canale and Swain [4]. Nevertheless, it should be underlined that the investigators were

mainly concerned that the speaker's message to be comprehended by ordinary listeners. Rather than principally following all the rules of pronunciation or grammar.

Alternatively, Halleck [73] argued that the OPI is viewed by many foreign language educators as the standard procedures for obtaining an overall assessment of oral proficiency in a foreign language. In this context, the study was undertaken with the aim of offering insights on the efficacy of the OPI as a test instrument in the measure of oral proficiency through rating procedures. The raters', undergraduate students in China, undisputed opinion that communicative factors were more prominent than features of sentence level grammar contradict the assertions of critics that grammatical norms are the most significant considerations in determining proficiency level. Even though the meaning associated to communicative factors is not clearly delineated in the study. In fact, Halleck [73] also criticizes the OPI Guidelines which he argued failed to mention communicative competence as an underlying construct.

Conversely, Yu [86] chiefly investigated one component of the CC construct [3, 4, 1] namely, sociolinguistic competence in a mixed -method study using a quasi-experimental approach with Chinese learners in Taiwan through a sociolinguistic test, which was defined in an item, where a sociocultural context was given. The participants chose from a list of four alternatives the most suitable way to respond to that particular situation. The scoring for this test was based on native-speaker responses to the items. Altogether, other measures were derived from the International English Language Testing System (IELTS) for the latter test is a world-wide standard assessment test of English Language proficiency. The results were centered on the instructional differences in communicative orientation that emerged stating that sociolinguistic instruction was not systematically carried out in the various classroom setting. In the same way, Qi and Lai [78] looked into another single component of CC which is pragmatic competence [1] through the administration of a written discourse competence task (DCT) which comprised of descriptions of twelve request situations; which according to the Qi and Lai [78] could be argued to encourage participants projected oral language. The findings are reported in terms of the appropriateness of each request response that was rated on a five-point scale and showed that explicit instruction proved more effective in developing learners' pragmatic competence than implicit instruction. The sole study [100] employing a test to investigate international teaching assistants' language skills alongside their teaching skills. An International Teaching Assistant test, which consist in teaching a minilesson and responding to questions in a classroom context, with the TOEFL and the OPI was administered. Findings are not principally reported in terms of language proficiency or CC but rather as an evaluation of the teaching skills of the participants. Interestingly, the study clearly evoked the component of linguistic competence presented as grammar, pronunciation, fluency, and comprehensibility. Also, it was stated that the teaching skills section showed some aspects of strategic competence both explicitly and implicitly with features of strategic competence that are explicitly listed in the descriptors in terms of the utilization of nonverbal communication and visuals.

Another research [76] evaluated three CC components, grammatical, discourse and pragmatic features by administering the OPI. This article studied qualification segments in the Japanese language employed by 30 native speakers of English at four different proficiency levels, superior, advanced, intermediate, and novice in an interview. The analysis effectuated from a discourse analytic perspective shed light on some neglected aspects of learner language which is the interrelatedness of learners' pragmatic, grammatical, and discourse abilities. Findings revealed that contrastive connective expressions and qualification segments in learner language demonstrate a relationship not only between L2 pragmatic and grammatical competence but also close relationships among pragmatic, grammatical, and discourse competences. The inclusion of the third component, discourse

competence, is important in providing a more comprehensive view of the progress of learner language. Further, in the context of a study with the objective of improving the communicative competence of foreign-born nurses, Van Schaik et al., [101] employed a knowledge test, a proficiency in Oral English Communication Screen Total, an auditory discrimination performance test total, a verbal performance test total, a vowel, an intonation and an articulation survey amongst others. The results of the study, which conducted exit interviews and analyzed through paired t-tests, are reported in terms of intercultural competence rather than CC. Whilst the participants considerable gains from the multiple tests which have been operationalized principally around rules of pronunciation and intonation revealing that participants made significant gains on the Knowledge Test suggested that they seem to be learning the rules of that native speakers of American English unconsciously.

In contrast, four papers [75, 132, 133, 134] focused on determining the validity of multiple test batteries namely the TOEFL iBT Speaking Test for International Teaching Assistant Certification; the TOEFL Junior VR; an analytical rating scale for a Spanish test for academic purposes and the General English Proficiency Test (GEPT) respectively. Finally, the unique study [99] in this category which assessed features of CLA posited, at the outset, of the research that communicative language ability is related to the notion of metaphoric competence implying that it would likely contribute to global CLA. In fact, the author debated that metaphoric competence is important for foreign language learners, as it is likely to influence their global CLA. As per Littlemore [99], CLA combines knowledge of grammatical rules with knowledge of language use to attain communicative goals through a dynamic process. In this way, metaphoric competence is likely to contribute to illocutionary competence [72]. Thus, CLA was assessed along with a test of metaphoric competence which constituted of a test of cognitive style, a test of ability to find meaning in metaphor, speed in finding meaning in metaphor, and fluency of metaphor interpretation. The test of CLA which encompassed a 15-minute oral interview where participants discussed a range of ethical, social and moral issues form an article of the Time magazine investigated 82 native speakers of French and L2 learners of English. However, the findings, generated through correlation analyses, indicated that this suggestion was inconclusive as there were no relationships between the two concepts. Despite the visible disparities in the use of test and measures to assess communicative CC and CLA, some notable studies definitely provided support in explicating the multifarious components of CC and the manner these components have been defined and operationalized in the literature over the past decades.

### Supplemental Text S3

#### **Different Construct Definitions of Communicative Competence**

***Beliefs and Perceptions about CC.*** It was found that some studies associated CC with features of non-linguistic outcomes. “Beliefs and perceptions about CC”, along with the three delineated sub-themes, involved non-linguistic outcomes that comprised of attitudes [49, 50], motivation [51], and language anxiety [52, 53] as well as perceptions and attitudes towards language performance and language competence [35, 54, 55] within the depiction of CC.

***Willingness to Communicate.*** Similarly, it was found that “willingness to communicate” characterized by motivation, attitudes and anxiety [35, 43, 44, 45, 46, 47] equated the notion to CC.

***Native Speakersim and Non-Native Speakerism.*** The findings demonstrated that the five articles within this category were concerned with the exploration of the oral performance of international teaching assistants in terms of their pronunciation, intonation, interactional competence, and intelligibility of the ESL or EFL participants. CC was depicted in terms of the desirability or acceptability of native-like performance [102]. Researchers, hence,

acknowledge that language learning, like other forms of learning, is eventually subject to an individual's internal mental state [79]. In this context, Chiang [58], Fox [59] Hahn [60], Kang [61] and Relano [61] have been underpinned by the dichotomization of the beliefs and values surrounding native speakerism and non-native speakerism in the context of international training assistants' education and training. Hence, the findings demonstrably indicate that features like native-like pronunciation and accentedness encourage comprehensibility were for a long time viewed as synonymous to CC. This finding implies that native speakers have been for long been perceived as the benchmark for CC.

**Mixed Specifications about CC.** The findings have once more revealed that that most studies reviewed in this theme provide a sample specific definition of the CC construct. Findings are disparate and varied. While few studies [114, 116, 115, 105] perpetuate the traditional aspect of CC; other research depicted a disparate portrayal of CC that consolidated the view that CC is indeed multifarious. As a result, no consistency with the findings amongst the studies [127, 129, 121, 122, 123, 117, 125, 126, 105, 130, 119, 124] that claim to be mentioning and using qualitative, quantitative and mixed methods to analyse the construct of CC was found.

**Expansion of CC.** Evidently, what seems to be the most prominent finding regarding the surveyed empirical studies is the prevalence of the concept of intercultural communicative competence [14, 110] and multimodal communicative competence [19]. This rising trend in the surveyed empirical data which implies that in contrast to other aspects relating to the conventional understanding of CC, this conceptualization of the construct under study, has become a necessary goal of second and foreign language learning [23]. Three target groups in this stream of research namely, language learners, teachers, and exchange programs were underscored. In terms of teachers, the findings showed that the studies [135, 136, 64] attempted to gauge teachers' cognition, teaching practices and attitudes regarding intercultural communicative competence. Most specifically, the studies, which are situated within ICC, imply that teachers are equally implicated in the promulgation of ICC within ESL and EFL contexts. Research is therefore not only concerned with learners' perceptions, but also teachers' point of view regarding ICC.

Moreover, the converging point of these studies is the finding that information technology has served the growth of (self-perceived) intercultural competency and mutual understanding of language learners from diverse backgrounds [137, 68, 94, 94, 98, 138, 139, 140]. However, it has also been noted that the manifestation of ICC is domain-specific as well as contingent on the topic being discussed [65, 66]. Nevertheless, researchers [135, 141, 67, 94, 100, 142] have inferred that foreign and second language learning have been largely complexified by the intertwined nature of language and culture; the goal to become an intercultural speaker and the significance of multimodal communicative competence in the success of online intercultural exchanges.

**Multimodal Communicative Competence.** Similar conclusions could be drawn from the studies englobing "multimodal communicative competence". As observed by [69, 29, 70] CC is no longer synonymous to the teachings of communicative abilities that are principally linguistic in nature [19]. In fact, increasing evidence leans towards the promotion of other forms of competencies linked to the multimodal nature of language learning and teaching especially in ESL, EFL and TESOL contexts. As such, the abovementioned studies underpinned by the claim made by Royce [19] whereby "teachers should begin to focus on and develop students' abilities in visual literacy, and to develop a pedagogical metalanguage to facilitate these abilities when images co-occur with spoken and written modes" (p.366). Owing to the changes in communication modes at the turn of the century, language teaching professionals need to become increasingly concerned with developing students' multimodal communicative competence [29]. In particular, the surveyed body of research posits that in



the light of previous models of communicative competence, most specifically Canale and Swain [4], Royce [19] and Celce-Murcia and colleagues [5], it is contended that to be proficient in English in current times, learners need to acquire and develop transversal competences which combine language-related competences (e.g., grammatical, sociolinguistic, and discourse competence) and multimodal literacy [71]. Fuchs and colleagues [70] argue that multimodal competence or multimodality [71] is at the core of this new kind of literacy which comprises of a set of abilities and skills in which visual, aural, and digital literacy intersect. It also includes the ability to comprehend and utilize the power of sounds and images with the aim of manipulating and transforming digital media, to easily adapt them to new forms [70].

Hence, the results acknowledge the fact that a shift is being encouraged in the context of language learning. This transformation is also being significantly influenced by the concept of multimodal communicative competence. Non-verbal strategies, combinations of other modes of communication [19] like visuals, audio and text that encourage meaning making are becoming the latest trend that shape language learning and teaching. Thus, it can be asserted that this expanded form of competencies, as offspring of their traditional parent CC, could represent the future of the construct under study.

If previously, the modelling and theoretical research treated CC as a monolingual capability [80]; by contrast, communication in the present-day context of globalization, happens across both languages and culture as well as across multimodal competences. Hence, the rationale behind the relatively well-developed areas of research in terms of ICC in the surveyed dataset of studies. Indeed, as demonstrated in *Results*, it can be argued that despite the disparity in terms of findings and evidence, the notion of CC does not suffer from issues of definition and terminologies. Rather, it would be more appropriate to argue that the claims and suggestions stipulated by the empirical research underscore the fact that CC has undergone a transformation and an evolution and has subsumed aspects and features that characterizes the context and requirements of language teaching and learning [96, 143, 144, 145, 63, 64]. As posited by the statistical findings for features of operationalization, the nature of communication in itself cannot be constrained within the theoretical frameworks of conventional CC models [80, 116, 117]. Rather, as argued by Leung and Lewlowicz [117], lived interaction is considerably more contingent and complex than the established conceptualization of communicative competence. In the same way, it becomes challenging for language assessment framework [1] to encompass all possible contingent human meanings. Hence, the inability for the included empirical studies to completely align with the different established models of CC and CLA.

## Supplemental Text S4

### Evolution of the Communicative Competence Construct

In the dataset of 85 surveyed studies, only 3 empirical studies [75, 73, 99] utilized the notion of communicative language ability (CLA), a notion that finds its inception with Bachman [1]. On the other hand, over the years and within the papers reviewed (1975-2020), it is the notion of communicative competence (CC) [3, 4, 5, 11] that predominates the relevant literature in the empirical studies that are of qualitative, quantitative and mixed-methods design. In the same vein, reviews and theoretical papers in the dataset frequently used the term communicative competence to address issues related to the concept of language proficiency and competency [2]. It is noteworthy to point out that the foci of some studies ( $n = 24$ , 28.24%) appearing since the beginning of the 21<sup>st</sup> century and onwards are chiefly the notion of intercultural communicative competence [14] (ICC). In fact, Byram [14] convincingly reasoned that ICC is an expansion of CC proposed by Hymes [11]. Similarly, Bohinski and Leventhal [93] argued that this can be explained by the fact there was a “rapid



advancement in computer technology and the Internet revolution that allowed second language learners to connect with others and with native speakers both at home and around the world” (p.522). In addition, Thorne [90] referred to this phenomenon as the “intercultural turn” as the last 15 years have shown an expansion of research interest from the communicative competence to intercultural communicative competence and the way online contact provide its contribution to this development [23].

## Supplemental Text S5

## List of included Studies

	Author (s)	Title	Source Title	Year	DOI
1	Pierce Bonny Norton	Social Identity, Investment and Language Learning	TESOL Quarterly	1995	10.2307/3587803
2	MacIntyre, PD;Noels, KA; Clement, R	Biases in self- ratings of second language proficiency: The role of language anxiety	Language Learning	1997	10.1111/0023- 8333.81997008
3	O'Dowd, R	Understanding the "other side": Intercultural learning in a Spanish-English- e-mail exchange	Language, Learning & Technology	2003	-
4	Hahn LD	Primary stress and intelligibility: Research to motivate the teaching of suprasegmentals	TESOL Quarterly	2004	10.2307/3588378
5	Baker, SC; MacIntyre, PD	The role of gender and immersion in communication and second language orientations	Language Learning	2000	10.1111/0023- 8333.00119
6	POLITZER, RL; MCGROAR TY, M	AN EXPLORATOR Y-STUDY OF LEARNING BEHAVIORS AND THEIR RELATIONSHI P TO GAINS IN LINGUISTIC AND COMMUNICAT IVE COMPETENCE	TESOL Quarterly	1985	10.2307/3586774

	<b>Author (s)</b>	<b>Title</b>	<b>Source Title</b>	<b>Year</b>	<b>DOI</b>
7	Kasper, G	Four perspectives on L2 pragmatic development	Applied Linguistics	2001	10.1093/applin/22.4.502
8	Willett J	BECOMING FIRST-GRADERS IN AN L2 - AN ETHNOGRAPHIC STUDY OF L2 SOCIALIZATION	TESOL Quarterly	1995	10.2307/3588072
9	Holmes, J	SEX-DIFFERENCES AND APOLOGIES - ONE ASPECT OF COMMUNICATIVE COMPETENCE	Applied Linguistics	1989	10.1093/applin/10.2.194
10	Littlemore, Jeannette; Low, Graham	Metaphoric competence, second language learning, and communicative language ability	Applied Linguistics	2006	10.1093/applin/am1004
11	Kang, Okim	Relative salience of suprasegmental features on judgments of L2 comprehensibility and accentedness	System	2010	10.1016/j.system.2010.01.005
12	Reinders, Hayo; Wattana, Sorada	CAN I SAY SOMETHING? THE EFFECTS OF DIGITAL GAME PLAY ON WILLINGNESS TO COMMUNICATE	Language, Learning & Technology	2014	-
13	Peterson, Mark	Massively multiplayer online role-	Computer Assisted Language Learning	2010	10.1080/09588221.2010.520673

	<b>Author (s)</b>	<b>Title</b>	<b>Source Title</b>	<b>Year</b>	<b>DOI</b>
		playing games as arenas for second language learning			
14	Morell, T	Interactive lecture discourse for university EFL students	English for Specific Purposes	2004	10.1016/S0889- 4906(03)00029-2
15	Weyers, JR	The effect of authentic video on communicative competence	Modern Language Journal	1999	10.1111/0026- 7902.00026
16	Fuchs, Carolyn ;Hau- ck, Mirjam ;Mu- eller- Hartmann, Andreas	PROMOTING LEARNER AUTONOMY THROUGH MULTILITERA- CY SKILLS DEVELOPMEN- T IN CROSS- INSTITUTION- AL EXCHANGES	Language Learning & Technology	2012	
17	Kanwit, Matthew; Geeslin, Kimberly	Sociolinguistic Competence and interpreting variable structures in a second language: A study of copula contrast in nature and second language Spanish	Studies in Second Language Acquisition	2020	10.1017/S0272263 119000718
18	Tudini, Vincenza	Negotiation and intercultural learning in Italian native speaker chat rooms	Modern Language Journal	2007	10.1111/j.1540- 4781.2007.00624. x
19	Littlemore, Jeannette	Metaphoric competence: A language learning strength of students with	TESOL Quarterly	2001	10.2307/3588031

	Author (s)	Title	Source Title	Year	DOI
		a holistic cognitive style?			
20	Yorio, CA	CONVENTION ALIZED LANGUAGE FORMS AND THE DEVELOPMEN T OF COMMUNICAT IVE COMPETENCE	TESOL Quarterly	1980	10.2307/3586232
21	Pomerantz, Anne; Bell, Nancy D	Task Complexity, Focus on L2 Constructions, and Individual Differences: A Classroom- Based Study	Modern Language Journal	2011	10.1111/j.1540- 4781.2011.01274. x
22	Revesz, Andrea	Task Complexity, Focus on L2 Constructions, and Individual Differences: A Classroom- Based Study	Modern Language Journal	2011	10.1111/j.1540- 4781.2011.01241. x
23	Henry, Alastair; Apelgren, Britt Marie	Young learners and multilingualism: A study of learner attitudes before and after the introduction of a second foreign language to the curriculum	System	2008	10.1016/j.system.2 008.03.004
24	Jauregi, Kristi; de Graaff, Rick; van den Bergh, Huub; Kriz, Milan	Native/non- native speaker interactions through video- web communication: a clue for enhancing motivation?	Computer Assisted Language Learning	2012	10.1080/09588221 .2011.582587

	<b>Author (s)</b>	<b>Title</b>	<b>Source Title</b>	<b>Year</b>	<b>DOI</b>
25	Lee, Yo-An	Towards respecification of communicative competence: Condition of L2 instructions or its objective?	Applied Linguistics	2006	10.1093/applin/am 1011
26	HOEKJE, B ; WILLIAMS , J	COMMUNICAT IVE COMPETENCE AND THE DILEMMA OF INTERNATION AL TEACHING ASSISTANT EDUCATION	TESOL Quarterly	1992	10.2307/3587005
27	Gan, Zhengdong ; Davison, Chris; Hamp- Lyons, Liz	Topic Negotiation in Peer Group Oral Assessment Situations: A Conversation Analytic Approach	Applied Linguistics	2009	10.1093/applin/am n035
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69	Qi, Xuedan; Lai, Chun	The effects of deductive instruction and inductive instruction on learners' development of pragmatic competence in the teaching of Chinese as a second language	System	2017	10.1016/j.system.2017.08.011
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83	Mendoza, Arturo; Knoch, Ute	Examining the validity of an analytic rating scale for a spanish test for academic purposes using the argument-based approach to validation	Assessing Writing	2018	-

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