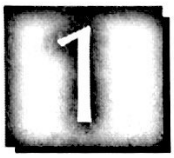

The Speaking-Writing Connection in Second Language and Academic Literacy Development

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Abstract

The connection between L2 speaking and writing goes in both directions: A large body of research suggests that L2 speaking can facilitate the acquisition of L2 literacy, but there is also growing evidence that L2 writing may have an impact on the development of L2 proficiency. The first direction is the more expected one, with ample evidence that writers are more likely to develop and revise their writing when they have an opportunity to discuss it. This has been demonstrated in at least three contexts: student-teacher conferences, peer review groups, and writing center tutoring sessions. The second direction is perhaps less obvious. Writing may aid in L2 development at two points: first, soon after initial acquisition, as learners test out new forms, and second, later in the process, as they access acquired forms they do not yet fully control. Because written production occurs under planned conditions, with less pressure than speaking, it allows learners to draw on both their explicit and implicit knowledge of the L2.

The relationship between development of writing ability and oral proficiency is a dynamic and complex one. In the early days of second language acquisition, written language and the acquisition of literacy skills were

considered secondary to the development of oral language, which was held to be the truest reflection of interlanguage (IL) competence. To read early writing on the topic was to learn that real IL was produced in spontaneous, real-time contexts in which the focus was on meaning and not form, in other words, for the most part, in conversational interaction (e.g., Krashen, 1981, 1982; Tarone, 1982). Written language potentially has few of these features although it may have some of them in certain contexts. Compared to conversational oral production, it tends to be planned, off-line, and may entail attention to the formal features of language. So what good is writing insofar as language acquisition is concerned? "Very little" might have been the response in the early days of the field. It was considered a reflection of competence, not a factor in its development (Krashen, 1984) and as such, generally took a back seat to oral proficiency in second language research and pedagogy (Harklau, 2002; White, 1987).

Our understanding of the connection between speaking and writing in a second language has come a long way, yet it is still not an area of extensive research. Harklau (2002) maintains that there remains "an implicit assumption of the primacy of spoken interaction that still underlies and shapes many studies of classroom second language acquisition," and she asks further why "applied linguists are more likely to ask *how students learn to write in a second language* than to ask *how students learn a second language through writing* (p. 332, emphasis in original).

It has long been assumed that the development of L2 proficiency is an important component of L2 writing proficiency (Cumming, 1989; Sasaki & Hirose, 1996; Schoonen et al., 2003), though connections between L2 oral proficiency specifically and writing development have not often been made. Most research on cross-skill influence has pointed to connections within modalities, either between reading and writing (e.g, Carson, 1993; Grabe, 2003) or speaking and listening (e.g., Vandergrift, 2006). Yet it is increasingly apparent that the act of writing may also promote general proficiency in ways that have not always been acknowledged. Thus, it is now possible to consider the influence of the development of L2 speaking and writing proficiency to be bidirectional as well.

Writing into Speaking

Perhaps the less obvious side of this bidirectional relationship is the influence of writing on the development of L2 oral proficiency. First a caveat: in discussing the effect of output activities, such as writing, on the development

of L2 proficiency, I begin with the assumption that the forms produced during these output activities are *already* part of the mental representation of the language—that is, that at least an initial form-meaning connection has been made (VanPatten, Williams, & Rott, 2004). Therefore, it is not possible, strictly speaking, to propose any direct influence of writing on the development of the L2 competence that underlies oral proficiency. Any influence of production, either written or oral, would be indirect; that is, the act of writing would affect the learner's processing of future input. In this sense, the earlier conceptions of the role of writing were correct: written production, like all production, *is* a reflection of, not a direct causal factor in, the development of IL competence. The difference in the argument I am presenting is that this is no more true for writing than for speech. Writing, like speaking, can have an indirect role in facilitating second language acquisition.

This is not an assumption that is universally accepted, of course (cf. DeKeyser, 2003, 2007; Ellis, 2007), but even if we accept the assumption that all IL forms that are produced already have some mental representation (except in the more trivial cases of production during mechanical drills), this does not entail the assumption that the first evidence of these IL forms will emerge in oral production. In fact, there is a small but growing body of research that suggests some forms may be used in the written language before they are produced in speech (Weissberg, 2000a, 2000b). Why should this be so, and what is the evidence?

One of the most important factors in considering the role of writing is planning (De Larios, Marin, & Murphy, 2001; Ellis & Yuan, 2004; Whalen & Menard, 1995). It has also been claimed that planned language is likely to be the context in which learners try out the forms that they do not fully control. Again, this is still not an argument for a direct effect of planning on acquisition. In order to "try out" forms, there must already be some mental representation of them. A large body of research suggests that learners use more complex and varied forms in their oral production when they have time to plan and especially if they are directed to focus on formal features of their production (Ortega, 1999; Mehnert, 1998; Skehan & Foster, 2001, Yuan & Ellis, 2004). In some cases, learners are able to increase their accuracy as well (Skehan & Foster, 1997; Yuan & Ellis, 2004). Ellis & Yuan (2003; 2004) demonstrated that for both speaking and writing, the opportunity for pre-task planning was the crucial factor in allowing learners to include new and more complex forms as they formulated their message. On the other hand, more time on task—that is, unlimited time during the task itself—again in both speaking and writing, was associated with more accurate performance. Ellis and Yuan suggest this is because the extra time on task led to increased monitoring of the output.

Although most of this work, with the exception of Ellis and Yuan (2004), has been limited to planned spoken production, the same argument may be applied to writing. Most writing is done at a more leisurely pace than speaking, allowing at least some time for planning. By its very nature, writing tends to direct the learner's attention to form as well as meaning (Cumming, 1989). Another important byproduct of the slower pace of writing is that it permits learners to draw on their explicit knowledge, which may not be available to them while speaking. This effect of this process is the subject of some controversy, namely whether retrieving this knowledge facilitates its transformation into implicit knowledge. Ellis (1993) proposes a weak interface position, in which explicit knowledge is never converted directly into implicit knowledge. Rather, explicit knowledge indirectly affects the development of implicit knowledge by facilitating the processes thought to be essential to second language learning. These include noticing new forms in the input and noticing the gap between the target input and IL forms. In addition, as noted, explicit knowledge can be an important resource for monitoring output.

Trying out new forms for the first time in writing is just one of the ways in which writing may facilitate the development of L2 proficiency. Some IL form-meaning connections may not be brand new, but rather, simply weak. They may not be fully controlled, yet learners can deliberately choose to use them when they have the time and attention available to do so. Cognitive views of second language learning, particularly skill theory, suggest that repeated retrieval for both comprehension and production assists in automization (DeKeyser 2001, 2007). The implication of this position is that retrieving a form repeatedly in planned production, such as in writing, increases the likelihood that it will be produced later in a more spontaneous setting such as conversation. Indeed, DeBot (1996) argues that this repeated access for use is more likely to strengthen form-meaning connections than simply perceiving forms in the input. Thus the opportunity to use these weaker forms in a context with less time pressure may be one way of facilitating automization because it is only in such a context that this repeated access for use may be possible. Speaking, in comparison, because it is time-bound, permits little opportunity for either reflection or monitoring. Under the pressure of spontaneous production, many speakers may only be able to produce what they can access automatically.

In summary, recent research suggests that writing may aid in the development of proficiency at two possible points: first, soon after the initial point of acquisition, as learners try out new and more complex forms or familiar forms in new contexts, and second, considerably later in the process, as they

access acquired forms over which they do not yet have full control, as part of their automization.

These proposals are not new. All of these functions have been suggested for output more generally. Swain (1995, 1998) has noted the potentially important role that output activities may play in helping learners to process input—specifically, to notice discrepancies between their own production and the input they hear or read, in other words, to "notice the gap." It may also help them to notice "holes" in their own competence; that is, in the act of production, learners may notice that they do not have the knowledge to say or write what they want to convey (Izumi & Bigelow, 2000; Rott, Williams & Cameron, 2002; Swain, 1998, Swain & Lapkin, 1995). It is possible that the realization of what they do not know primes them to notice relevant forms in future input (Williams & Fernández, 2007). No specific work has been done comparing the relative value of output for noticing in written versus spoken production,[1] but all of the reasons cited—time, planning opportunity, focus on form—usually also pertain for writing, perhaps more than in even planned spoken production. When learners write, they often have more opportunity to notice these gaps or holes, which can be registered only fleetingly in conversational interaction.

One area of research relevant to the speaking-writing connection addresses the effects of written reformulation and task repetition (Adams, 2003; Izumi, 2002; Izumi & Bigelow, 2000; Qi & Lapkin, 2001; Sachs & Polio, 2007; Swain and Lapkin, 2002; Thornbury, 1997). In reformulation, writers compare their original work with a new version that has been reformulated by a native speaker and, subsequently, revise their own work. In repetition tasks, learners have an opportunity to write a second draft in response to the same prompt (not revise the original draft) after seeing feedback on the first draft, following exposure to further input, or sometimes simply after the passage of time. For example, Adams (2003), in a study of written story reconstruction, found that learners who were allowed to discuss differences between their own production and their drafts reformulated by a native speaker wrote more target-like second versions of their stories compared to the second drafts of those without the same opportunity. Investigations of these two pedagogical techniques suggest that when learners have an opportunity to compare their work to that of others, or when they simply have the opportunity to reconsider the task after additional exposure to relevant input, their texts and the language in them change, in general for the better.

[1]Though see Wong (2001) for the effect of differences in input processing across modalities.

The affective aspects of the acts of speaking and writing are yet another avenue to consider in their relationship. Even if form-meaning connections are relatively robust, some learners are simply unwilling to try out IL forms in such a public and vulnerable context as conversation, or they may find the notion culturally dissonant. This reluctance is independent of whether they are actually capable of doing so. Some learners would prefer to try out language about which they do not feel confident in the safer, less public form of writing where they might get feedback from their teacher before going solo. They are also more likely to receive helpful feedback in this context. In writing, it is even possible for learners to request feedback on specific forms that concern them. In contrast, an error in spoken interaction might yield a funny look, a breakdown, or, if it is not crucial to communication, perhaps nothing at all. Learners might never be able to determine the accuracy of their hypotheses if they try them out only in conversation. Harklau (1994, 2002) notes that in her study of high school second language learners, interaction between them and their teacher was almost non-existent. She found that their spoken production was similarly minimal. To her surprise, most of their learning took place through interaction with written input. The bulk of their output was written as well. They got almost no feedback on their spoken production; in contrast, their teachers gave them considerably more feedback on their writing, generally in the form of explicit feedback on language form.

Hybrid Forms of Interaction

One way to cast further light on the interaction between the two modalities is to examine forms of language production that fall somewhere between writing and speaking. Two such forms are journaling and online chatting. Several authors have noted the effectiveness of journal writing in developing writing skills and, in some cases, language proficiency (Casanave, 1994; El-Koumy, 1998; Fazio, 2001; Peyton, 1990; Peyton & Staton, 1993; Weissberg, 2000a, 2000b). They argue that it is a safe place to try out new language, to experiment, but also, as with other types of writing, to receive useful feedback. It represents a hybrid genre that is written, yet two-way, personal, conversational in flavor, and generally with lower stakes than more formal academic writing. Weissberg, citing the private yet immediate nature of journaling, calls it a staging ground for syntactic acquisition. In his study, Weissberg compared the acquisition of syntactic features in the speech and writing of five second language learners of English. Although each of the

learners displayed a unique pattern of acquisition in the two modalities, he found that writing (in dialogues) appeared generally to be "preferred for the emergence of new morphosyntactic forms" (2000a, p. 37). In addition, he found that learners' use of these forms was more accurate in writing than in speech, a finding consistent with some of the research on planning time in oral production.

Synchronous computer-mediated-communication (CMC) is yet another form that may shed light on speaking-writing connections. Research in CMC suggests that online chatting also shares characteristics of both writing and speaking (e.g., Payne, 2002; Pellettieri, 2000; Smith, 2003, 2004). Like journaling, CMC is written, two-way, low stakes, and conversational. The turn-taking time is much more forgiving than in an oral conversation but clearly much faster than in journaling. Smith (2004) reviews some of the demonstrated benefits of CMC over face-to-face interaction. These include increased participation among learners in terms of the quantity and complexity of the language produced in chat sessions. Warschauer and Kern (2000) maintain that the visual nature of the input in CMC increases learner's ability to focus on the formal aspects of language, which is often elusive in conversational interaction. Pellettieri (2000) also notes the impact of the visual representation on learners' ability to incorporate corrective feedback. Finally, CMC research also suggests that it brings out more diffident students who prefer not to speak in class and increases learners' willingness to take risks. Although not the focus of her study, Lam (2000) notes the role that online chatting played in the development of one learner's oral proficiency. Her study participant explicitly stated that he preferred to work things out in writing before using newly acquired features in spoken interaction.

In a study explicitly focused on the relationship between chatting and oral proficiency development, Payne (2002) examined the phenomenon in terms of working memory. He argues that chatting, because it offers a safe venue for trying out and strengthening new form-meaning connections, can assist in automization, thus freeing up working memory for acquisition of new forms. He explains that the processing advantages of online chatting may be several. First, the slower rate of the exchanges reduces processing demands. Demands on working memory are also reduced because interlocutor responses, instead of being quickly fading memory traces, are right there on the page, available for review. In other words, participants get more than one chance to process input and feedback on their output. In his own study, he found that those who engaged in online chatting showed greater gains on an oral proficiency test than those who did not. He concludes that there is a transfer of skills from writing to speaking.

Speaking into Writing

Research on the opposite direction of influence—that is, the impact of speaking on the development of L2 literacy—has been much more common. Such a relationship in general has perhaps never been in doubt. What follows explores a small area of this research, specifically investigations of the nature of transfer of knowledge gained in spoken interaction to written production and of the specific venues in which it has been shown to take place.

First, there is considerable evidence that talking about writing can improve the overall quality of writing (Ferris & Hedgcock, 2005; Hyland, 2003; Weissberg, 1994), at least in draft-to-draft changes. This assumption underlies much of what happens in both native speaker and L2 writing classrooms. However, there is less evidence of the impact of talking on movement toward more target-like language use in writing. We find some evidence for this influence primarily in three areas of research: investigations of the effect of teacher-student conferences, feedback in peer response groups, and writing center tutoring sessions.

In their study of teacher–L2 learner conferences, Pathey-Chavez and Ferris (1997) found that learners who contributed actively to the conversation in student-teacher writing conferences made more substantial revisions in their drafts, including changes at the sentence level. However, because the authors did not focus on issues of grammatical accuracy or word choice, it is difficult to draw any clear conclusions about their effects on language acquisition. Goldstein and Conrad (1990), in their study of writing conferences with L2 writers, obtained similar results: those students who participated in negotiation during conferences were more likely to make meaningful and successful revisions in their drafts. Again, these studies offer no specifics about draft-to-draft changes at the level of linguistic accuracy and complexity.

Although there is a considerable body of research on the effectiveness of peer feedback on revision, the primary focus is usually not on linguistic form (Ferris, 2003; Liu & Hansen, 2002). Indeed, advice to teachers on conducting peer response emphasizes content and rhetorical aspects of writing over grammatical form (Berg, 1999; Liu & Hansen, 2002). Much of peer response research also focuses on more macro-level issues—the overall difference in quality in the text and changes at the propositional level. This orientation, along with the emphasis in most of the common coding schemes for analyzing revision (e.g., Faigley & Witte, 1981), make it difficult to evaluate changes in grammatical or lexical accuracy or complexity. In addition, in many of these studies, the peer feedback is provided in writing, so the results

cannot contribute to a discussion of the effect of speaking on writing. Such feedback does not allow the writer and responder to negotiate changes as oral responses do. Finally, in keeping with current pedagogical trends in peer response, in many of these studies, students were explicitly told not to focus on language issues, but to address content and rhetorical issues only.

Only one study of peer groups that used oral responses also separated out the effect of these discussions on changes at the linguistic level. Villamil and de Guerrero (1998) found that in spite of instructions to concentrate on content, peer responders and writers focused as much on grammatical issues as content and revised significantly at the sentence level. However, although this study did find that these comments generally led to positive changes in the drafts, the authors only noted change. They did not specify whether these changes resulted in increased grammatical accuracy or complexity.

The positive effects of collaboration are not limited to peer response groups in writing classes. In similar research on collaboration in other activities, Storch (1999) conducted a study of group work in performing form-focused activities (cloze exercise, text reconstruction, and a short composition). She found that learners who worked in pairs and discussed the activities had more accurate results than those who worked alone. Although in two of the exercises the participants were not writing, in the sense that they were not creating new text, this positive result is suggestive. By sharing their knowledge and engaging in dialogue, the learners were able to complete the activities more successfully than those who worked alone.

The opportunity to share and coconstruct knowledge has been discussed by researchers from a variety of other perspectives, most notably those working within socio-cultural theory. Numerous studies (Donato, 1994; Swain; 2000, Swain, Brooks, & Tocalli-Beller, 2002; Swain & Lapkin, 2002) have all found that collaborative dialogue during writing tasks can build knowledge that did not previously exist in the minds of any of the individual participants. Swain argues that collaborative metatalk—that is, conversation about language—may facilitate acquisition (see Weissberg, this volume). The role of talk is particularly important because, within the socio-cultural perspective, knowledge construction is mediated by language; articulation makes the new knowledge available for inspection and discussion. This, it is argued, is a precursor to the internalization of knowledge. This positive influence of collaborative dialogue is in addition to the other purported beneficial effects of output already noted, such as hypothesis testing, increased noticing, and fluency.

The positive impact of collaborative talk has been found in the interaction of peers, but it is perhaps even more evident in the interaction of

learners with relative experts, such as writing center tutors. The writing center literature abounds with descriptions of sessions as "conversations," but there has been little exploration of the impact of the sessions on what writers do subsequently, and still less of their impact on the writers' language development. One study in this area (Williams, 2004) tried to provide some preliminary answers to the first question. Direct assessment of the writing center sessions is extraordinarily difficult to do because of the challenge of teasing out the impact of the interaction in the session from that of other potential factors. An additional difficulty is that although many ESL students come to the writing center for assistance with sentence-level questions, most writing center tutors are taught to focus on larger rhetorical issues (Gillespie & Lerner, 2004; Harris, 1986; McAndrew & Reigstad, 2002). This reduces the likelihood that the spoken interaction will influence IL development.

The focus of Williams (2004) was broader than the impact of speaking on grammatical accuracy in that it addressed all changes in the text, not just in language use. It traced aspects of a draft discussed in the session to changes in the subsequent draft. Of course, it is possible that many other factors also intervened between drafts: consideration of teacher feedback, help from friends, or simply time to reflect. Therefore, the results can only be suggestive. However, the drafts following writing center sessions do demonstrate that sentence-level changes in morpho-syntax and in lexical choice were the most prevalent type of revision. Most of the changes were discussed during the sessions. This was in spite of tutors' consistent efforts to give the sessions a broader, more rhetorical orientation. These draft-to-draft revisions may say nothing about permanent changes in the writers' ILs, of course. However, in the absence of this kind of evidence of more short-term improvements, it is unlikely that there will be any permanent change in IL. In these short-term changes, in which learners can try out new or more complex forms in the less pressured context of writing, and with the expert assistance of a tutor, perhaps we are seeing the forward edge of IL development.

One last area of research that may be relevant to the speaking-writing connection is verbal reporting of writing processes, such as think-aloud protocols and stimulated recalls. These research tools have been used to report on various learner processes (Gass & Mackey, 2000; Jourdenais, 2001). In particular, they have been used to indicate levels of awareness since it is impossible to report on anything unless one is aware of it. Much of this research is based on the assumption that these techniques are not reactive; that is, the act of reporting does not affect the cognitive processes about which the report is made (Bowles & Leow, 2005; Leow & Morgan-Short, 2004). Yet, it has been

suggested that the verbal reports used to explore learners' thought processes may actually create learning opportunities for participants (Adams, 2003; Sachs & Polio, 2007; Swain & Lapkin, 2002).[2] While this presents a potential problem in terms of research methods, it nevertheless suggests some interesting possibilities. Adams (2003), in a study of story reconstruction, showed that writers who participated in stimulated recalls demonstrated more target-like versions of the story following the recalls than those who did not have this opportunity. This led Adams to conclude that the stimulated recalls increased noticing. Sachs & Polio (2007) conducted a study of reformulation that used concurrent think-aloud protocols. She found a clear association between the verbalization of the differences that participants noticed between their own first drafts and those reformulated by native speakers and the changes they later made in the revisions. If a difference between the two drafts was verbalized, then it was likely to be changed in the revision.

These are just some of the ways in which the relevant studies point to how the development of language proficiency may be related to the act of writing. It is likely that the growing body of research in all of these contexts will continue to provide evidence of the dynamic and complex nature of the bidirectional influence of speaking and writing.

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[2]The opposite may also be true: Reporting may drain cognitive resources, detracting from learner performance (Polio, 2002).

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