

## **Learning as Discursive Apprenticeship into Academic Communities of Practice: Implications for Academic-subject Instruction for English L2 Learners**

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When English as a Second Language (ESL) teachers team up with academic-subject teachers to teach English second language (L2) learners, one naturally asks: What expertise can ESL teachers offer teachers of academic subjects? Answers abound in the Teaching of English to Speakers of Other Languages (TESOL) literature. A prototypical answer is given in Arkoudis' (2003) study on the genetics lesson planning work shared by two high school teachers, one ESL and one science. For the ESL teacher, her epistemological authority rests on an understanding of second language acquisition (SLA). For the science teacher, his epistemological authority rests on an understanding of Mendelian genetics. Therefore, the ESL teacher's role is based on language, while the science teacher's role is based on science content.

At first glance, this division of labor sounds acceptable. So, too, does the definition of the TESOL expertise we contribute to partnerships with mainstream academic-subject teachers. Those of us in TESOL believe, or want to believe, that our work in promoting L2 learners' academic success is equal in importance with the work of our academic-subject colleagues. However, our classroom teaching experiences indicate otherwise. In examining cases of ESL teachers at work, actual TESOL contributions in practice are absent or downplayed in favor of academic content (Arkoudis, 2003; Creese, 2005). In content-based ESL classes, content objectives often edge out language objectives, to the detriment of second language acquisition, and also learning in general (Creese, 2005). Input/ interactionist perspectives in SLA research argue that "a focus solely on meaning, such as in the building of concepts, may not leave enough space for second language learners to focus on the language itself" (Creese, 2005, p. 191).

This inequitable relationship between ESL teachers and academic-subject teachers has prompted researchers and practitioners alike to ask: What is the role of ESL teachers if they are to promote their learners' academic success? If the work of ESL teachers is as valuable as that of academic-subject teachers, why do these partnerships appear lopsided, with ESL teachers secondary to their academic-subject colleagues? These questions echo, unresolved, and lead to the most persistent question of all: Where is the language in all of this? This question picks at the uneasiness we associate with the perceived absence of linguistic content in academic-subject instruction. It implies that we ESL teachers are failing in our responsibilities to English L2 learners.

This paper will examine how this language-versus-content dichotomy collapses in light of research, learning, and teaching. In place of this view, I propose a reconceptualization of language and content through the lens of sociocultural theory, as a spectrum of academic communities have done in science (Lemke, 1990), mathematics (Wood, 1999), linguistics, and psychology (Gee, 1999; Lave & Wenger, 1991; Vygotsky, 1986). The difficulty in separating out language from content indicates that we have exhausted the usefulness of this theorized split in epistemology and the corresponding split in the role and responsibilities of each teacher. We need to rethink our views on content and language. Doing so may help us re-draw the landscape of TESOL,

reconfigure work relationships between teachers of ESL and academic subjects, level epistemological hierarchies, and change academic experiences for our English L2 learners.

A closer reading of Arkoudis (2003) unearths assumptions that language and content can be neatly defined with no crossover, and that language is a separate and separable entity from content. Moreover, language is assumed to be a carrier of meaning or content, but is in and of itself, empty of meaning or content. These assumptions also underlie content-based TESOL approaches promoted by Echevarria, Vogt, and Short (2004) and Chamot and O'Malley (1994), since they treat the English language as (a) an obstacle that must be overcome in order to build literacy in academic subjects, or (b) a precondition for cognitive development. How is this language-versus-content dichotomy applicable to research, and how useful is it in the classroom?

Research reveals a fissure between the TESOL expertise that ESL teachers are theorized to contribute and the expertise that ESL teachers are observed to contribute. Arkoudis' (2003, 2005) data will be used to illustrate this fissure, since it is representative of other studies reviewed by Creese (2005) on academic-subject instruction for English L2 learners. If we hold, at least momentarily, that we can indeed draw a boundary that truly separates language from content, extracting language pedagogy from content pedagogy should pose no challenge. However, this task proves more difficult when perusing Arkoudis' (2003) data. One instance from her transcript of the lesson planning work between the ESL teacher and science teacher alerts us to the fuzziness of this boundary. After the science teacher, Alex, and the ESL teacher, Victoria, couch their understanding of Mendel's experiments in historical context, Victoria recommends to Alex that he draw on students' prior knowledge of genetics. Where is the language, or TESOL, in this? Given Arkoudis' definition of TESOL expertise as "an understanding of the demands of studying a second language, and of the time it takes to become proficient in English at the cognitively demanding levels required of students in secondary schools" (p. 166), it is unclear how Arkoudis interprets this utterance. Does she regard this utterance as an example of TESOL expertise or science expertise? Perhaps it exemplifies neither. Perhaps it exemplifies both. Drawing on students' prior knowledge is not solely the domain of TESOL expertise, as Arkoudis has defined. Those familiar with constructivist pedagogy could argue that Victoria's recommendation is simply good teaching for any content. Subjecting this data to the theorized definition of TESOL expertise renders the ESL teacher's TESOL contribution unrecognizable. Even if the ESL teacher were observed as teaching relevant technical vocabulary such as "recessive," the quandary of how to interpret the teaching of this vocabulary as language or content would still persist.

These problems of interpreting the empirical evidence spill over to teaching. Arkoudis' (2005) more recent paper using the same data challenges preconceived notions of the ESL teacher's TESOL contributions. Following Arkoudis' explicit instruction to both teachers at the onset of their lesson planning that they "specifically balance the language and content curriculum" (p. 178), Alex asks Victoria if the lesson should include instruction on converting verbs into their present participle forms. In TESOL, that suggestion would fit squarely in the language category. Is this evidence that language objectives have finally won equal standing with content objectives? Here's what happens in the data: The ESL teacher ultimately rejects the inclusion of this language objective in the genetics lesson, after flipping back and forth between "yes" and "no" over ten times within the span of three turns. Not only is Victoria documented as expressing ambivalence about including this language objective in the lesson plan, she expresses her discomfort afterwards in a follow-up interview with the researcher. In sum, Arkoudis' (2003, 2005) data show a mismatch between the theorized TESOL contribution and the ESL teacher's documented contribution, and unwittingly casts more doubt on the appropriateness of applying the language-

versus-content dichotomy to the division of labor in teaching.

A common practice for ESL teachers involves first tackling the academic language, in particular technical vocabulary such as *recessive* and *gene*, before tackling the content (if at all). But is the teaching of this vocabulary exclusively language instruction, and therefore, within the realm of ESL teaching only, or is it exclusively content instruction, and therefore, the realm of science teaching only? Which is it, and whose job is it to teach it? What about the semantic relationships between *gene* and *recessive*—whose job is it to teach those? Arkoudis (2003) assigns language teaching to the ESL teacher and content teaching to the academic subject teacher, on par with the tradition of separating language from content. Again, this labor division does not show up in Arkoudis' (2003, 2005) data. In fact, the data show an unexpected reversal of roles: Alex pushing the language agenda, and Victoria pushing the content agenda.

In the realm of learning, the language-versus-content division also does not apply. The dichotomy crumbles in light of anecdotal evidence of English first language (L1) learners who fail to learn the academic subject matter. In those cases, their academic failure cannot be explained away by any English language deficiency.

Lessons from second language acquisition might be useful here. Although decoding technical terms does have a place in developing literacy, it is certainly not the whole of it. It is also not central to it. Many of us in TESOL would agree that learning the English language is not simply acquiring the technical jargon used to refer to its array of morphosyntactic units, not merely the mental cataloging of the phonemes that occur in English, and not only the storage and efficient retrieval of the words deemed legitimate and important by experts of the language. Learning a language requires a much richer experience than any single one of those processes and even all three combined. This understanding of language learning and language itself informs our ESL teaching and applies to the teaching and learning of other languages and extends to the teaching and learning of other subject matter.

Ironically, the focus on technical vocabulary is exactly what ESL teachers gravitate toward in academic-subject instruction. Mohan and Slater (2005) attribute this phenomenon to how “specialist vocabulary tends to be the most noticeable feature of scientific English” (p. 152). That said, I fully empathize with ESL teachers who argue that they lack the academic content knowledge necessary to take on teaching responsibilities beyond decoding academic vocabulary. Having little to no content knowledge certainly undermines effective pedagogy, but content knowledge does not, by itself, guarantee effective teaching or learning. My own classroom experiences have convinced me that teachers do not necessarily translate their content knowledge into sound teaching practices befitting the needs of their students. Regardless of whether their learners are L1 or L2, some teachers resort to the exact language teaching practices that TESOL experts would expect to fail. I have observed teachers presenting lists of high-frequency words found in previous exams, and assigning students to do dictionary work for entire class periods, looking up each term and copying the glossary definitions onto flashcards. When the learners produce neither high test scores nor demonstrate true science literacy, who should we turn to? The language-versus-content division offers no clear direction in assigning specific responsibility for promoting the academic success of L2 learners, or in assigning blame, as the case may be. In any case, that may be a moot point, since the responsibility for promoting L2 learners' academic success belongs to both teachers.

To establish shared responsibility, we must view language and content as *discourse*, in which the two are closely related, not separate. After all, Scott (1998) argues that “learning to talk science ‘runs rather deeper than simply learning to articulate the words and phrases of a new

speech genre” (as cited in Mohan & Slater, 2005, p. 152). Teaching science for the purpose of building science literacy cannot be reduced to dictionary work or a focus on verb tense forms. If there is more to science than either or both of those combined, then we might agree with Lemke (1990), who defines science literacy as

learning to communicate in the language of science and act as a member of the community of people who do so. ‘Talking science’ means observing, describing, comparing, classifying, analyzing, discussing, hypothesizing, theorizing, questioning, challenging, arguing, designing experiments, following procedures, judging, evaluating, deciding, concluding, generalizing, reporting, writing, lecturing, and teaching in and through the language of science. (p. 1)

His definition of learning parallels what Barwell (2005) calls “human development through participation in communities of practice” (p. 144). This definition of learning opposes learning (and teaching) as the mere acquisition of a static body of facts, rules or words. We can extend Barwell’s (2005) participatory perspective to view discourse as language, yes, but language loaded with meaning and purpose and action. Discourse can establish one’s identity, negotiate and co-construct an understanding of the world and connect our thinking, actions, and being to others in the communities to which we belong or seek membership (Gee, 1999). Learning, or participating in academic discourse, is akin to joining the activities of the academic community. In a sense, discourse might be a working space where language is content and content is language, where mental and social actions are constantly intertwined. In my view, mental actions and social actions cannot be brought together in, so called, balanced content-and-language instruction. They were never separate to begin with.

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