CrossMark

Lang. Teach. (2016), **49.3**, 339–355 © Cambridge University Press 2016
doi:10.1017/S0261444816000082

Research Timeline

Reading-writing relationships in first and second language academic literacy development

William Grabe Northern Arizona University, USA
William.grabe@nau.edu

Cui Zhang Eastern Kentucky University, USA
Cui.Zhang@eku.edu

Introduction

Reading and writing relations, as this concept applies to academic learning contexts, whether as a major way to learn language or academic content, is a pervasive issue in English for academic purposes (EAP) contexts. In many cases, this major link between reading/writing and academic learning is true even though explicit discussions of this relationship are commonly identified in other ways. For example, research on summarizing skills is an aspect of abilities that come under reading-writing relations. Similarly, topics including synthesis writing, note-taking, plagiarism, content-driven essay exams, term papers, theses, and dissertations, among other topics, are all aspects of reading-writing relations. These core academic skills become even more complex aspects of reading and writing together, when we add electronic texts, web page resources, and other media sources.

Issues covered under reading-writing relations can include academic reading abilities, academic writing abilities, reading to write, writing to read, reading and writing to learn, and reading and writing to synthesize and evaluate. One interesting observation, most probably due to first language (L1) contributions from writing and composition research, is that writing is most often the focus of reading/writing studies. Reading is often seen as the input for writing, and reading comprehension is treated as relatively unproblematic. However, we know that in second language (L2) contexts, reading is every bit as problematic as writing when exploring reading-writing relations.

The history of reading and writing as literacy skills that work together goes back a very long way, perhaps even to the early commentaries on religious texts and subsequent hermeneutics, but we are interested in the modern pathways of research on reading-writing relations. The best starting point, then, is the expansion of cognitive sciences and mental theories of language in the 1970s. Practical instruction perspectives from English for Science and Technology (EST) and English for special purposes (ESP) also became more prominent in the 1970s.[1]

[1] Swales, J. (1985). *Episodes in ESP: A source and references book on the development of English for Science and Technology*. Oxford: Pergamon.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

Many topics can be included in our effort to identify landmark publications over the past 35 years. We are necessarily constrained in our selection of texts that have guided L2 scholarly thinking. Otherwise, we would be citing hundreds of publications. We reference certain key L1 research sources because they have had a major impact on how L2 scholars have approached reading-writing relations. Key L1 references can be divided into cognitive/educational psychology, composition/rhetoric, and K-12 education literacy development. L2 research contexts can also be divided into an ESP category and an EAP/writing category, although there has been much blending across these two categories in the past 15 years. We code our selections under one (or more) of five categories:

L1 Educational psychology (L1 EP)
L1 composition and rhetoric (L1 C&R)
L1 K-12 education literacy (L1 KEL)
L2 ESP
L2 EAP/writing

We also then code references in terms of presenting evidence or arguments into the relevant categories below:

Exploratory studies	(ES)
Instructional studies	(IS)
Quantitative evidence	(Quant)
Qualitative evidence	(Qual)
Overview/survey of research	(OS)
Book or edited volume	(B-EV)

One consequence of asking two North American scholars to synthesize key references in reading-writing relations is that the North America reading-writing context will dominate. This emphasis is not simply due to a myopic view of how reading-writing relations are practiced around the world, although there might be a touch of this seeping in (and we humbly apologize). More prominently impacting our review are the facts that (1) North American post-secondary institutes are mostly insistent on required writing courses as preparation for subsequent university coursework, (2) international students have come to North America in large numbers for university study since the 1960s and then had to work through the ubiquitous freshman composition requirements, and (3) composition studies (in L1 and L2 contexts) became a major academic field of study in the U.S. beginning in the 1970s.

This topic is complex to conceptualize because major research studies and extended book coverage have significantly impacted subsequent research in EITHER writing OR reading. We will not reference major works that focus almost solely on one or the other literacy skill, but not both. Moreover, in discussing key sources in reading-writing history, we will not only be highlighting research articles from journals. Some of the most compelling resources that have impacted subsequent thinking have been books written on the topic of reading-writing

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

relations (Carson & Leki 1993; Johns 1997; Hirvela 2004; Leki 2007; see timeline for all authors).

A number of key themes have emerged over the past 35 years that deserve mention as a final summary statement:

1. Even though reading and writing are not explainable as mirror-image literacy skills, they have bidirectional developmental paths. They are two aspects of literacy abilities that mutually support each other.
2. Reading is a very common source of input for writing tasks in academic settings, and university writing tasks almost overwhelmingly require the use of textual input of some type (including electronic texts).
3. Direct instruction in multiple reading-writing skills significantly improves abilities to work from texts and improve in various academic writing tasks.
4. Reading and writing should be taught as integrated skills in EAP contexts.
5. Students' combined reading and writing abilities develop through stages as their academic literacy develops.
6. Understanding the organizational structure in reading texts will not only improve students' reading comprehension but also writing production.
7. Effective instruction integrating reading and writing often involves the use of appropriate text models, especially in more advanced academic contexts.
8. The approach to understanding reading and writing integrated tasks by Spivey (1990, 1997: see timeline) has held up well as a formulation of effective use of sources for writing tasks in L1 and L2 contexts. That is to say, discourse synthesis abilities seem to be guided by organizing, selecting, and connecting relevant input for a given writing task.

WILLIAM GRABE is Vice President for Research at Northern Arizona University, and Regents' Professor of Applied Linguistics in the Department of English. Recent books include *Reading in a second language: Moving from theory to practice* (Cambridge University Press, 2009) and *Researching and teaching reading* (with F. Stoller, 2nd edn, Routledge, 2011). He served as editor of the *Annual Review of Applied Linguistics* for ten years (Cambridge University Press, 1990–2000). In 2005 he received the Distinguished Scholarship and Service Award from the American Association for Applied Linguistics.

CUI ZHANG is Assistant Professor in the Department of English and Theatre at Eastern Kentucky University. Her research interests are second language writing development and reading-writing relations. She has conducted a semester-long, instructional study on English as a second language (ESL) students' synthesis writing and collaborated with Dr Grabe on several articles on second language reading and writing relations.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

Year	References	Annotations	Theme
1963	Loban, W. (1963). *The language of elementary school children*. (http://eric.ed.gov/?id=ED001875. Washington, DC: U.S. Government documents.	**Loban**'s early study was the first readily accessible volume to show empirically that reading-writing relationships were strongly correlated for L1 students from grades 3 through 6. Over a 6-year period, 333 students were followed. Students who could write well were also above their age level in reading, and students who read poorly, wrote poorly. This trend became stronger with more advanced grades.[a]	L1 KEL Quant. ES B-EV
1981	Swales, J. (1981). *Aspects of article introductions*. Birmingham, UK: Aston University. Republished University of Michigan Press (2011).	**Swales's** monograph was the seminal work on L2 genre research and rhetorical structures in research articles. This work highlighted the CARS (Create-A-Research-Space) model. The subsequent 35 or so years since this work have involved either explicit or implicit discussions of the reading-writing relationship, moving from analysis of source text models to specific disciplinary academic and professional writing.	L2 ESP
1984	Shanahan, T. (1984). The nature of the reading-writing relation: An exploratory multivariate analysis. *Journal of Educational Psychology* 76, 466–477.	In this ground breaking study, **Shanahan** tested 256 second and 251 fifth grade students on 12 reading and writing measures. Latent trait measures of reading and writing abilities were developed through canonical correlations. Across all variable loadings in the canonical analyses, none of the variables explained more than 45% of shared variance between reading and writing. Although most individual variables were significantly related across reading and writing, none was so strong as to refute the argument that reading and writing have many real cognitive differences. Shanahan's analysis provides a strong corrective on conclusions drawn by Loban (1976).[b,c]	L1 EP L1 KEL ES Quant.
1985	Carrell, P. (1985). Facilitating ESL reading comprehension by teaching text structure. *TESOL Quarterly* 19, 727–752.	In this study, Carrell showed that teaching the organizational structure of texts improved both students' recognition of textual organization and their recall of textual information with 25 intermediate-level ESL students.	L2 EAP IS Quant.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
1986	Horowitz, D. (1986). What professors actually require: Academic tasks for the ESL classroom. *TESOL Quarterly* 20, 445–462.	This article reports on a survey of actual writing tasks assigned by professors at a U.S. university. While the sample is small, the findings were an early confirmation about intuitive judgments and expectations of many U.S. university faculties. Most writing assignments in U.S. universities involve input from one or more written sources. The obvious pedagogical implications were that ESL literacy development must include both reading and writing skills development, preferably with practice in the tasks that are usually assigned in university subject matter courses.	L2 EAP ES Qual.
1986	Langer, J. (1986). *Children reading and writing: Structures and strategies*. Norwood, NJ: Ablex.	In a project involving 67 case studies, examining 3rd, 6th, and 9th grade U.S, students, reading and writing involved enough different operations and strategies that they should be considered distinct cognitive skills within literacy development. In writing, students were more consciously focused on writing strategies used to generate meaning and consider goals and sub-goals for their writing. When reading, the same students were more focused on extracting meaningful content and confirming the emerging coherence of the information they were processing. **Langer** provides an analysis that complements SHANAHAN (1984).	L1 KEL LI C&R, Quant. Qual. B-EV
1986	Shanahan, T. & R. Lomax (1986). An analysis and comparison of theoretical models of the reading-writing relationship. *Journal of Educational Psychology* 78, 116–123.	The authors drew upon data from SHANAHAN (1984) to examine if a reading to write model (reading explained writing ability), a writing to read model (writing explained reading ability), or a bidirectional model of reading-writing development (each ability supported the development of the other) best accounted for student performance on the variables used in the study. The study showed that reading-writing relationships were best understood as bidirectional development. Reading and writing development was mutually supportive in improving literacy skills.	L1 EP ES Quant.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
1987	Swales, J. (1987). Utilizing the literatures in teaching the research paper. *TESOL Quarterly* 21, 41–67.	In this article, one of the first to address discourse approaches to writing research papers, **Swales** discussed ways in which discourse analysis can help advanced EAP students understand and use textual sources in the writing of scientific journal articles. It also discussed his CARS approach and suggested how such an approach could be part of teaching the research paper. Swales presents practical applications from SWALES (1981).	L2 EAP OS
1988	Shanahan, T. (1988). The reading-writing relationship: Seven instructional principles. *The Reading Teacher* 41, 636–647.	**Shanahan** drew on multiple empirical studies as well extensive teaching experience to provide seven instructional principles for elementary- and secondary-level students in U.S. contexts. The power of this article is that these seven principles have been reiterated by many other authors in the subsequent 25 years. Key recommendations included teaching reading and writing in an integrated manner, changing the types of reading-writing instruction as students develop more advanced abilities, focusing on processing strategies as well as content outcomes, engaging students in meaningful reading-writing tasks, and encouraging discussions about reading and writing relationships to support understanding. Much like SWALES (1987), Shanahan builds on SHANAHAN (1984) and SHANAHAN & LOMAX (1986).	L1 EP L1 KEL OS
1990	Spivey, N. (1990). Transforming texts: Constructive processes in reading and writing. *Written Communication* 7, 256–287.	**Spivey** examined the synthesis writing produced from reading multiple texts, focusing on 'discourse synthesis' abilities. She developed a framework for analyzing the major strategies students use while composing from sources: organizing content, selecting important content, and connecting background knowledge with text content. She found that the way students interpreted the task influenced how texts are structured and could be a major source of writing difficulty.	L1 EP L1 C&R OS

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
1990	Swales, J. (1990). *Genre analysis*. New York: Cambridge University Press.	This was perhaps the most influential L2 book on genre analyses and its impact on reading-writing relationships, even though it was not explicitly dedicated to examining reading-writing relationships. It addressed in detail **Swales**'s genre analysis of research articles as well as other academic genres. It was evident from his analyses that texts played a crucial role in the development of university level L2 writing skills. This volume built on SWALES (1981, 1987).	L2 EAP L2 ESP OS Qual.
1992	McGinley, W. (1992). The role of reading and writing while composing from sources. *Reading Research Quarterly* 27, 226–247.	**McGinley** studied the reading and writing processes of seven students as they read two texts and wrote a synthesis paper within a two-hour period. He found that students composed in a recursive manner involving reading, writing, and thinking. The better students transitioned to more writing and less reading time as they moved into the second half of their total time while weaker writers continued to spend longer amounts of time going back to reread the texts. McGinley concluded that, overall, reading and writing a synthesis essay led to a transformation of the knowledge taken from texts as an outcome of their writing.	L1 C&R ES Qual.
1993	Carson, J. & I. Leki (eds.) (1993). *Reading in the composition classroom: Second language perspectives*. Boston, MA: Heinle and Heinle.	This edited volume was the first L2 book examining various facets of reading-writing relations for L2 students. The book includes important chapters by Carson, Flahive & Bailey, and Johns.	L2 EAP B-EV

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

Year	References	Annotations	Theme
1993	Johns, A. (1993). Reading and writing tasks in English for Academic Purposes classes: Products, processes, and resources. In J. Carson & I. Leki (eds.), *Reading in the composition classroom: Second language perspectives*. Boston, MA: Heinle and Heinle, 274–289.	In a first exploration of socioliteracy contexts impacting the reading and writing needs of university L2 students, **Johns** examined university reading and writing tasks and students' interpretations of these tasks. She highlighted the socio-cultural limitations of students trying to interpret tasks assigned to them. She also introduced the idea of building ethnographic experiences with literacy assignments to help students in understanding what is expected by university faculty. A key notion for students is to learn what is expected and then develop the appropriate skills and strategies to carry out literacy tasks successfully (with the teacher's help). This article extends earlier work by Swales (1987) and Horowitz (1986).	L2 EAP OS
1996	Hayes, J. (1996). A new framework for understanding cognition and affect in writing. In C. Levy & S. Ransdell (eds.), *The science of writing*. Mahwah, NJ: L Erlbaum, 1–27.	In this major revision of the writing process, the Hayes-Flower writing process model was changed in a number of important ways. **Hayes** identified reading abilities of multiple types as central in the writing process. In important ways, writing was theorized as a combination of reading and writing abilities. (See Hayes 2012, for the most current version, still including a strong role for reading.)[d]	L1 EP L1 C & R OS
1996	Perfetti, C., M. Britt & M. Georgi (1996). *Text-based learning and reasoning*. Mahwah, NJ: L. Erlbaum.	In this book-length study of writing and learning from multiple texts on a topic (Panama Canal), six university students read sets of texts over a four-week period and wrote multiple summaries of main events about the Panama Canal. In the process of acquiring the main ideas about the Panama Canal, students learned to construct a stable main event explanation quickly – usually within reading the first two texts. Thereafter, students engaged in additional factual learning, reasoning, and perspective taking throughout the rest of the readings provided. In this way, multiple texts on a topic continuously increased students' perspective taking and their abilities to reason with these growing sets of facts about the topic, even if the main events remain as stable representations. The study provides a cognitive psychology framework for the discourse synthesis approach proposed by Spivey (1990).	L1 EP ES Qual. B-EV

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
1997	Johns, A. (1997). *Text, role and context: Developing academic literacies*. New York: Cambridge University Press.	This book was a major study of how texts should be understood and written as contextualized documents that reflect a writer's goals, social identification, and intended effects on readers. The book focused on ways that disadvantaged and language minority students in universities can be taught how to examine and produce a range of texts through socioliteracy explorations. The book greatly expanded JOHNS's (1993) article and drew extensively on qualitative research conducted over a decade in many classroom contexts. This influential book draws on earlier work by SWALES (1990).	L2 EAP Qual. B-EV
1997	Leki, I. & J. Carson (1997). 'Completely different worlds': EAP and the writing experiences of ESL students in university courses. *TESOL Quarterly* 31, 39–69.	**Leki & Carson** drew on their prior survey of ESL university students, and then interviewed these and other students in a two-stage research study. Based on students' own commentary (and their difficulties with university writing tasks), they found that EAP students do not receive adequate instruction in writing from source texts in tasks that require 'text responsible' writing – writing in which the content of the source texts is judged for accuracy by faculty. L2 students needed much practice in analyzing task expectations, examining models of successful task performance, and working with textual information to improve their writing.	L2 EAP ES Qual.
1997	Spack, R. (1997). The acquisition of academic literacy in a second language: A longitudinal case study. *Written Communication* 14, 3–62.	This 3-year longitudinal study documented a Japanese L1 student, Yuko, in her process of acquiring academic literacy. Through the collection and analysis of multiple types of materials, **Spack** identified the reading and writing strategies utilized by Yuko to cope with the required tasks. These strategies included reading strategically only as needed to do tasks she was going to focus on, talking with professors about reading and writing tasks, finding out what the professors wanted, using supporting resources effectively, and drawing on multicultural background knowledge. A major emergent finding was that Yuko needed much practice to eventually learn successful reading-writing strategies. This study, although based on one student, strongly contrasted with JOHNS (1997) in arguing that general composition courses (as opposed to EAP courses) provide university students with basic writing skills that can be developed further in other disciplinary courses.	L2 EAP ES Qual.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
1997	Spivey, N. (1997). *The constructivist metaphor: Reading, writing, and the making of meaning.* New York: Academic Press.	**Spivey** discussed her constructivist theory and reported four studies that provided strong evidence for her theory of discourse synthesis writing from multiple resources. Spivey discussed the processes of synthesis writing – organizing, selecting, and connecting– as pertaining both to critical reading and writing. She reported on four synthesis studies to lend empirical support to the constructivist model for discourse synthesis: (1) a study on students' writing of informational texts, (2) a developmental study, (3) a study on writing comparisons, and (4) a study on students' performances with disciplinary tasks. The four studies, together, provided persuasive evidence for a discourse synthesis writing model of reading-writing relations. This book persuasively expands the arguments of SPIVEY (1990).	L1 EP L1 C&R ES Quant. OS B-EV
2000	Armbruster, B. (2000). Responding to informative prose. In R. Indrisano & J. Squire (eds.), *Perspectives in writing*. Newark, DE: International Reading Association, 140–160.	**Armbruster** reviewed many studies involving writing from informational source texts. She reviewed studies involving a single source, multiple source texts, summarizing of texts, and literacy curricula involving reading and writing for conceptual learning. Two major conclusions were taken from the review of research: (1) training in summary writing consistently improves the text comprehension and the writing of summaries themselves; (2) text structure training and the use of graphic organizers with expository texts improves writing and learning outcomes.	L1 EP L1 KEL OS
2000	Fitzgerald, J. & T. Shanahan (2000). Reading and writing relations and their developments. *Educational Psychologist* 35, 39–50.	The authors argued that while reading and writing have many cognitive similarities as complex skills, they also have important differences. One of the chief differences was in the amount of choice that writers have to shape writing versus the obviously limited control that readers have to shape the text being read. They also outlined a detailed theory of L1 developmental stages for reading-writing relations. This overview expands the arguments from earlier articles by SHANAHAN (1988).	L1 EP L1 KEL OS

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
2001	Carson, J. (2001). A task analysis of reading and writing in academic contexts. In D. Belcher & A. Hirvela (eds.), *Linking literacies: Perspectives on L2 reading-writing connections*. Ann Arbor: University of Michigan Press, 48–83.	**Carson** reviewed reading-writing relations from an academic task perspective, drawing on real academic tasks assigned in six college courses. She highlighted the consistent linkages between reading and writing in university coursework, the importance of information synthesis from source materials, the ability to recognize and use paraphrasing skills, and the greater need for writing skills in graduate courses.	L2 EAP OS
2003	Grabe, W. (2003). Reading and writing relations: Second language perspectives on research and practice. In B. Kroll (ed.), *Exploring the dynamics of second language writing*. New York: Cambridge University Press, 242–262.	**Grabe** reviewed briefly the early research on L1 reading-writing relations and then focused on L2 studies on reading-writing relations. For L2 contexts, four issues were addressed: the interdependence hypothesis, the language threshold hypothesis, the role of extensive reading, and the reading-writing directionality issue. Ten suggestions for reading-writing instruction were provided. This overview was strongly influenced by JOHNS (1997), LEKI & CARSON (1997), and SHANAHAN (1990).	L2 EAP OS
2004	Guthrie, J., A. Wigfield & K. Perencevich (eds.) (2004). *Motivating reading instruction: Concept-oriented reading instruction*. New York: Erlbaum.	This groundbreaking volume was the first book-length collection of research findings and descriptions of Concept-Oriented Reading Instruction (CORI), a literacy instruction approach developed by **Guthrie** and colleagues, which now has 20 years of research support documenting its effectiveness with elementary school children. In six-week unit blocks, students learned to formulate thematic questions, explore multiple source texts, develop appropriate strategies for comprehending and using source texts, and carry out integrated academic tasks typically involving reading and writing. Over the past ten years, continued research results have suggested that EAP curriculum developers could learn much from this approach. (See Guthrie, Wigfield & Klauda,[e] 2012, for CORI update and middle-school applications.)	L1 EP L1 KEL OS Quant. B-EV

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

Year	References	Annotations	Theme
2004	Hirvela, A. (2004). *Connecting reading and writing in second language writing instruction*. Ann Arbor: University of Michigan Press.	**Hirvela** provided an extensive overview of the relationships between reading and writing abilities in EAP settings. His survey of EAP and ESP scholarship emphasized the importance of understanding and using information from source texts in multiple writing tasks. The book also emphasized ways in which writing can be seen as effective preparation for reading comprehension, as well as the roles of reading and writing for advanced writing-from-sources tasks in theses and dissertations.	L2 EAP L2 ESP B-EV
2005	Cumming, A., R. Kantor, K. Baba, U. Erdosy, K. Eouanzoui & M. James (2005). Differences in written discourse in independent and integrated prototype tasks for next generation TOEFL. *Writing Assessment* 10, 5–43.	This study compared the writing in 216 writing tasks by 36 examinees for the next generation TOEFL prototype. Examinees wrote both independent writing samples as well as writing samples based on varying types of input. The authors found that examinees produced significantly different discourse for the integrated tasks compared with the independent writing task. Examinees' independent essay writing demonstrated abilities to write coherent arguments based on personal knowledge. In contrast, examinees' integrated essay writing demonstrated coherent summarizing and paraphrasing, comprehension of complex information, and effective use of source material.	L2 EAP ES Quant.
2007	Leki, I. (2007). *Undergraduates in a second language*. New York: L. Erlbaum.	This book was an extraordinary five-year study following four EAP students in four majors as they moved through their entire undergraduate experience. It is unusual for the depth of qualitative analysis and insights into reading and writing tasks actually carried out by different students in different majors. These four cases indicated that some students can move through their full undergraduate experiences with very little writing in a number of disciplinary majors. **Leki** showed that for some students, reading and writing can end up being disconnected literacy skills that do not actually build upon each other. She also highlighted the importance of students understanding the assigned tasks and knowing how to carry them out. This book serves as a useful counterpoint to Spack (1997).	L2 EAP ES Qual. B-EV

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
2008	Nelson, N. (2008). The reading-writing nexus in discourse research. In C. Bazerman (ed.), *Handbook of research on writing*. New York: L. Erlbaum, 435–450.	This overview provided a major summary of research on reading-writing relationships from an L1 composition and rhetoric perspective. In several respects, it provided a more current continuation of several seminal issues: cognitive relations between reading and writing skills, the role of text models to improve writing skills, audience considerations while writing, the impact of reading while writing, reader interpretation of the author, and summarizing and synthesizing knowledge from texts. In its own right, this overview is an outstanding synthesis. It provides an important counterpoint to FITZGERALD & SHANAHAN (2000).	L1 C&R OS
2008	Robinson, M. S., F. Stoller, M. Costanza-Robinson & J. Jones (2008). *Write like a chemist: A guide and resource*. New York: Oxford University Press.	This book, a collaboration primarily between a Chemistry faculty member and an applied linguist, guides Chemistry faculty in teaching their students how to write discipline-specific journal articles, research proposals, conference abstracts, and posters. It draws extensively on corpus analyses of chemistry writing and a Swalesian genre approach to chemistry genres. It centers on a read-analyze-write approach and combines advanced chemistry content with an ESP instructional framework. It was the most advanced example of an approach to disciplinary writing from multiple sources. It draws heavily on SWALES (1990).	L1 EP L2 ESP B-EV
2009	Plakans, L. (2009). The role of reading strategies in integrated L2 writing tasks. *Journal of English for Academic Purposes* 8, 252–266.	This study examined 12 ESL writers' use of reading strategies while composing an integrated writing task through the analyses of think-aloud protocols and interviews. Results showed that students who write better essays use more effective reading strategies. This result suggested the important role of reading ability and strategy use in the process and production of integrated writing tasks. It also highlights the effectiveness of SPIVEY's (1997) model of organizing, selecting, and connecting operations while working with source texts.	L2 EAP ES Qual.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
2012	Shanahan, T. & C. Shanahan (2012).What is disciplinary literacy and why does it matter? *Topics in Language Disorders* 32, 7–18.	For the past eight years, L1 literacy researchers have been asking why adolescent literacy instruction in U.S. schools has not made appropriate progress in developing students' academic literacy abilities, particularly with more complex tasks that draw on multiple source texts, and with more complex reading text. **Shanahan & Shanahan** (see also Shanahan & Shanahan 2008[f]) have been pioneering this U.S. L1 effort to distinguish content area literacy instruction from disciplinary literacy instruction, an approach that should be seen as more familiar to L2 ESP and EAP specialists. This is a U.S.-based L1 shift in secondary-school literacy instruction, recognizing that different disciplines emphasize distinct language and discourse uses, as well as more specialized reading and writing skills (U.S., Common Core Standards skills, a U.S. move towards a national standard K-12 curriculum). It strongly suggests the need to understand and use multiple source texts for writing tasks in secondary school contexts, although the linkage to academic task outcomes in specific disciplinary contexts does not yet seem to be fully appreciated.	L1 KEL OS
2012	Yang H.-C. & L. Plakans (2012). Second language writers' strategy use and performance on an integrated reading-listening-writing task. *TESOL Quarterly* 46, 80–103.	The authors examined the roles of three types of strategy use on performance in an integrated reading-listening-writing task. University-level ESL students in the U.S. (n = 161) completed a reading-listening-writing task and then filled out an integrative-skills strategy use inventory. The essays were rated holistically using an integrated writing scoring rubric. The authors used Structural Equation Modeling to identify indirect and direct traits that impacted writing performance. Self-regulation strategies directly influenced discourse synthesis strategy use and indirectly influenced writing performance. Discourse synthesis strategy use directly impacted writing performance while test-wise strategies negatively influenced writing performance. The results suggest that students who approach an integrated task with effective self-regulation and discourse synthesis strategies will perform better on integrated writing tasks. This study also draws on SPIVEY's (1997) discourse synthesis model.	L2 EAP ES Quant.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
2013	Grabe, W. & C. Zhang (2013). Second language reading-writing relations. In A. Horning & E. Kraemer (eds.), *Reconnecting reading & writing*. West Lafayette, IN: Parlor Press, 108–133.	The authors surveyed research on L2 reading-writing relations across a range of sub-topics and academic student groups. Research studies surveyed focused on summarizing skills, discourse synthesis writing, research paper writing, plagiarism and copying in student writing, and the impact of contrastive rhetoric (and more recent intercultural rhetoric) arguments on writing variation across differing L1/L2 combinations. This overview is influenced strongly by JOHNS (1997), LEKI (2007), and PLAKANS (2009).	L2 EAP OS
2013	Horning, A. & E. Kraemer (eds.). (2013). *Reconnecting reading & writing*. Anderson, SC: Parlor Press.	This volume provides a compilation of mostly U.S. L1 perspectives on reading-writing relationships, in secondary school through university contexts. There are also chapters on writing in international contexts and L2 reading-writing relations. The majority of chapters are drawn from U.S. composition and rhetoric perspectives, providing a useful overview.	L1 C&R B-EV
2013	Mason, L., M. Davison, C. Hammer, C. Miller & J. Glutting (2013). Knowledge, writing, and language outcomes for a reading comprehension and writing intervention. *Reading and Writing* 26, 1133–1158.	**Mason et al.** trained 77 low-achieving L1 4th-grade students in reading comprehension instruction or in reading comprehension plus writing instruction with expository content texts. A third group served as a control. Students in both intervention groups significantly outperformed the control group on oral and written retellings, a writing quality measure, a standardized reading test, and a vocabulary diversity measure.	L1 KEL IS Quant.
2013	Plakans, L. & A. Gebril (2013). Using multiple texts in an integrated writing assessment: Source text use as a predictor of score. *Journal of Second Language Writing* 22, 217–230.	**Plakans & Gebril** analyzed 480 reading-listening-writing test task samples from the Educational Testing Service's TOEFL iBT. Multiple regression analysis identified significant contributions (53% shared variance) from 'important ideas from source texts' and 'the use of the listening text content.' While reading text content by itself did not add significantly to writing performance, the reading input provided important background against which to select specific content from the listening text. Results from this study show that integrated writing tasks from multiple sources required key academic reading and writing skills.	L2 EAP ES Quant.

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
2013	Yu, G. (ed.) (2013). *Use of integrated writing tasks in language assessment* (Special Issue). *Language Assessment Quarterly* 10.1.	The special issue of *Language Assessment Quarterly* highlighted then-current research on the development of reading and writing assessment tasks and outcomes. It brought to the forefront the importance of effective assessment practices involving reading and writing integration in L2 academic contexts.	L2 EAP B-EV Quant. Qual.
2013	Zhang, C. (2013). Effect of instruction on ESL students' synthesis writing. *Journal of Second Language Writing* 22, 51–67.	**Zhang** examined the effect of classroom-based instruction on ESL students' synthesis writing from two source texts. Students in the experimental class (N = 14) received five iterations of synthesis writing instruction/practice that were integrated into an existing reading and writing curriculum, while the control group (N = 15) followed the original curriculum. Results showed that the experimental students produced better synthesis essays at posttest. This study suggests the importance of instruction in improving EAP students' synthesis writing quality and drew on GRABE (2003), PLAKANS (2009), and SPIVEY (1997).	L2 EAP IS Quant.
2014	Ferris, D. & J. Hedgcock (2014). *Teaching ESL composition: Purpose, process, and practice* (3rd edn). Mahwah, NJ: L. Erlbaum.	This volume, in its third edition, is the standard professional book for teaching L2 writing for academic purposes. Chapter four addresses reading, genre awareness, and task design in L2 EAP contexts. The overview of reading-writing relations, linkages to genre awareness, and writing instruction suggestions highlight ways to develop academic literacy abilities through integrated reading and writing tasks. The synthesis draws on GRABE (2003), JOHNS (1997), and SWALES (1990).	L2 EAP OS B-EV

https://doi.org/10.1017/S0261444816000082 Published online by Cambridge University Press

YEAR	REFERENCES	ANNOTATIONS	THEME
2014	Cumming, A. (2014). Assessing integrated skills. In A. Kunnan (ed.), *The companion to language assessment*, vol.1. New York, NY: John Wiley & Sons, 216 – 229.	This synthesis article provides a current review of research on efforts to assess L2 reading and writing integrated skills. **Cumming** briefly noted four broader avenues for research in integrated skills assessment and five challenges facing integrated skills assessment. The article emphasizes medium and high stakes assessments and identified important research directions for the future, the most prominent of which was to refine the constructs and purposes for using integrated skills assessments, and demonstrate the effectiveness of such tasks in academic contexts.	L2 EAP OS B-EV
2014	Gebril, A. & L. Plakans (2014). Assembling validity evidence for assessing academic writing: Rater reactions to integrated tasks. *Assessing Writing* 21, 56–73.	**Gebril & Plakans** have developed an extended research agenda examining the construct of reading-writing integrated tasks and the validity of such tasks for academic language assessment purposes. This qualitative study involved rater decisions in scoring reading-writing tasks, drawing on both interview and think-aloud data. Low scores consistently involved linguistic errors and problems of non-comprehension. Scores at all levels involved rater attention to uses of source texts.	L2 EAP ES Qual.

[a]This entry is 1963, not 1976, as reading data. The 1976 book asserts the connection.
[b]Authors' names are shown in small capitals when the study referred to appears in this timeline.
[c]Loban, W. (1976). Language development: Kindergarten through grade twelve (Research report – National Council of Teachers of English. no 18). Urbana, IL: NCTE.
[d]Hayes, J. R. (2012). Modeling and remodeling writing. *Written Communication* 29.3, 369–388.
[e]Guthrie, J. T., A. Wigfield & S. Klauda (eds.) (2012). *Adolescents' engagement in academic literacy.* www.corilearning.com/researchpublications/2012_adolescents_engagement_ebook.pdf.
[f]Shanahan, T. & C. Shanahan (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review* 78.1, 40–59.