

Book Review Editor

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Exploding Technical Communication: Workplace Literacy Hierarchies and Their Implications for Literacy Sponsorship

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Working from New Literacy scholarship and using historical documents from the Boomtown Arsenal in Ohio, *Exploding Technical Communication* offers a comprehensive look into how the influence of literacy sponsorship intersects with home, work, and community. By recognizing that “technical communication, along with managerial communication practices, is a large part of this sponsorship of literacy” (p. 17), Remley opens the door to further inclusion of literacy practices—especially historical research into technical communication and literacy sponsorship—into the conversations inside and outside of the classroom about the role of modalities and literacies students are learning before or after they enter into the workplace.

The book is divided into nine chapters, each of which sets the course for covering and combining the diversity of methodologies (interviews, race and gender sampling, and document analysis) used to craft Remley’s argument for paying more attention to literacy practices in technical environments. Chapters 1 through 7 do a lot of the theoretical and historical lifting for this book as Remley divides each chapter to cover the interrelationship between methodologies of historical research, historical context, multi-modal technical communication within industrial training, training practices and sponsorship implication, visual and experiential literacies, and literacies in the community and home. Specifically, Remley

uses the first three chapters to explicitly detail the socio-economic conditions of the pre-WWII workforce to highlight how managers at the Arsenal assessed the literacy, primarily writing and reading, of the workers who applied for jobs within the plant. This careful attention to historical records aids in our understanding of workforce needs at a critical time when many of the available workers were still feeling the effects of the Great Depression. Chapters 8 and 9 set workplace literacy and sponsorship within contemporary contexts of Training within Industry (TWI), Manufacturing Extension Partnership (MEP), and virtual simulation training spaces (*Second Life*). He links themes found in his historical research with scholarship on how companies continue to readdress the need for a literate, skilled workforce who are able to adapt to multimodalities within their given fields.

Chapter 1 sets forth Remley's argument that there is still a critical need for more investigation into how New Literacy scholarship—especially the works of Deborah Brandt, Shirley Brice Heath, James Paul Gee, and Harvey J. Graff—Multimodality, and Technical Communication can effectively help students and technical communication scholars understand the intricate interplay of these fields in the lives of workers. Remley's goal is to help the reader see the parallels between historical research into literacies, modalities, and technical communication of the past with the current economic environments of displacement of workers as they relocate around the country and the retraining of workers whose industries have collapsed.

Chapter 2, Methodology and Issues in Historical Research, outlines the inherent challenges of doing historical research familiar to anyone who does ethnographic research or archival work. It is this chapter that I feel is most impressive and useful for students and instructors alike because Remley spends a great deal of time and care in investigating the ethical issues of researching the past practices of workers, management, and the frailty of memory. This chapter is divided into subchapters dealing with issues surrounding his research: "1) concerns of memories of older adults who were interviewed, 2) interview sampling relative to representation of the population, 3) dealing with sensitive workplace information, 4) coding multimodal documents, 5) accounting for missing pages in archival documents, and 6) ascertaining actual use of printer material" (p. 20). The chapter includes two appendices that give the interview questionnaire used in his interview of Arsenal workers and the interview categories and codes he used ascertain the literacy levels of the plant at the time of their employment.

Chapter 3, Historical Context, provides a short outline of the Boomtown Arsenal as it relates to the growth in American industrial preparation for war during the critical period of 1940-1945. Remley uses this chapter to provide some background information on the migration of workers during this period, the government's sponsorship of training programs during the pre-war years, and the recruitment of workers from across the United States. This chapter, while relatively short, packs in a lot of information that helps explain why the need for understanding multiple literacies, home and environmental literacies, and multimodalities play a part in his examination of the Arsenal in later chapters.

Chapters 4 and 5, Training Within Industry: Sponsored Multimodal Technical Communication and Training Practices, the Accident, and Sponsorship Applications, utilize the wealth of archived material from the Arsenal plant to highlight how the federal governments Training Within Industry (TWI) program helped to "standardize training and some operations around the United States during WWII" (p. 69). By drawing upon TWI and US Army training documents used during the period, Remley reconstructs the multimodalities of instruction used to train new workers, especially the use of aural and visuo-spatial procedures used for all workers regardless of literacy level as well as the growing need for more sponsors on hand to guide workers along during technical procedures. Likewise, Remley uses these documents to better show how the manuals produced for worker consumption during and after training were reevaluated and rewritten to match the needs of a varied workforce. As he points out, the change in sponsorship dynamics helped change the early print-linguistic manuals from text oriented by "recognizing that more visual information in them may encourage workers to review them and understand them better than using only print-linguistic text" (p 101).

Chapters 6 and 7 integrate the historical literacies of the workers into the discussion of workplace modalities by using interviews to locate where and how workers combined work specific literacy with that of their original home and community literacies. These chapters highlight the dangers of rhetorical pitfalls vis-à-vis overly technical warnings in manuals that may not account for prior experience with or knowledge of technical terminology.

For program directors or instructors, Chapter 8, Current Applications of Training Within Industry: Continued Sponsorship of Technical Communication offers an in-depth look at modern literacy sponsorship, or Training within Industry (TWI), that can aid students in understanding the role of mentors during future internships or partnerships. Remley does an

excellent job of providing sample documents from case studies using TWI methods in manufacturing and healthcare. The section on manufacturing covers a series of batch process flow charts, which integrates visual and print-linguistic text in order to streamline troublesome diagrams to be more user-ready and efficient. While the focus on manufacturing and diagrams offer a useful example of TWI, Remley's focus on the healthcare industries' response to TWI utilizes a more in-depth look into how mentor-mentee/trainer-trainee contributions to addressing the visuo-spatial needs of staff can lead to productive outcomes in redesigning shadow boards for surgery and room assignments. Remley offers different multimodal applications (YouTube training videos, the virtual reality simulator *Second Life*, and flight simulators) as territories of modern TWI engagement that require supervision and guidance through modern modalities available to many departments. Many of these new techniques in mentorship and the advancement of collaborative technologies further highlight the historical precedents of adaption Remley set in his earlier archival work at the Arsenal.

Students entering internships or those who are looking at doing archival work in their graduate career will benefit from Remley's observations concerning mentorship, home and work literacies, and methodology of interviewing workers, doing ethnographic studies, and digging through historical documents in the archives. One of the strengths of this book concerns the intricate explication of how multiple literacies combine with modalities that are often overlooked in technical communication literature, especially those literacies and modalities that have become obsolete in some cases. The interdisciplinary nature of this book also lends itself to being taught in a variety of classes that focus on the ways of knowing in different industries and how workers cope with the technical aspects of their job. Students in the liberal arts, humanities, social sciences, sciences, engineering, and agriculture can easily utilize Remley's approach for their own projects in technical communication classes across all disciplines since his prose is clear and methodology invites further exploration of local literacies and how these shape audiences.

Program administrators and instructors are also apt to utilize this work as a model for teaching the roles literacy sponsors undertake in the workplace. Chapter 9, *Workplace Communication and Implications of Sponsorship*, captures Remley's assertion that we need to look at local literacies in combination with global workplaces, which is nothing new to technical communication; however, his approach asks for a constant reevaluation and adaptation of literacy in the workplace to meet the needs

of an ever-growing multinational workforce that requires quick shifts in working in different modalities. He identifies James Gee's work on metacognition in the 'new work order' as a model for allowing workers, and by extension students reading this work, to understand the need to adapt quickly to new situations as they arise in the workplace. These arguments will help any professional or technical communication program adapt their syllabi by focusing on the constantly evolving nature of the workplace with an emphasis on teaching students how historical workplaces shifted their own practices in response to the needs of war production, influxes of workers from different areas of the country and literacy levels, and management styles.

Author Information

Geoffrey Clegg currently teaches business writing at The Pennsylvania State University, University Park campus. His research interests include archival research into composition pedagogies, digging into the archives of small or rural university technical communication programs, and historical print culture. This is an extension of his dissertation, which focused on the place of graduate level pedagogical practices in rural institutions, and serves as a chance for the field to recognize innovation in unlikely places.