

Development of Cognitive Writing Process Studies (1): Early Research History of Janet Emig

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In the early 1960s, cognitive revolution emerged, and under the influence of cognitive science, writing researchers began focusing on the cognitive process of writing. Since the 1980s, writing researchers have published further studies, gaining attention in research fields as various as cognitive psychology, education, and language acquisition. In the development of cognitive writing process studies, Janet Emig's breakthrough work *The Composing Processes of Twelfth Graders* (1971, hereafter *Composing Processes*) played a prominent role. She utilized a think-aloud protocol to study how writers think and work during writing activities; this study accelerated cognitive studies of the writing process. After Emig's research, a number of other researchers began exploring the cognitive writing process. Although many researchers have referred to *Composing Processes*, the inspiration for Emig's research remains unclear. Therefore, this research note focuses on the early history of Emig's research to shed light on the background of this landmark work.

Before the Cognitive Approach

As mentioned above, cognitive writing studies emerged in the 1980s.

Previously, writing instructors and researchers had focused almost entirely on learners' writing products. Rhetoric, defined as "the method of organizing syntactic units into larger patterns" (Kaplan, 1967), played an especially important role throughout the 1970s. In rhetoric-oriented instruction, the teacher checks whether learners' writing is organized into rhetorically acceptable patterns. Some writing researchers criticized this approach because it molds learners' writing into pre-existing styles, which gives them little chance to think creatively and thus does not enhance their writing proficiency. Flower and Hayes (1977) claim:

In the midst of the composition renaissance, an odd fact stands out: our basic methods of teaching writing are the same ones English academics were using in the seventeenth century. We still undertake to teach people to write primarily by dissecting describing a completed piece of writing. The student is (a) exposed to the formal descriptive categories of rhetoric (modes of argument—definition, cause and effect, etc.—and modes of discourse—description, persuasion, etc.), (b) offered good examples (usually professional ones) and bad examples (usually his/her own) and (c) encouraged to absorb the features of a socially approved style with emphasis on grammar and usage. We help our students analyze the product, but we leave the process of writing up to inspiration. (Flower & Hayes 1979, p. 449)

This rhetorical approach was dominant in L2 writing; however, some teachers and researchers criticized it and complained about the classroom situation:

Until 1980, we followed the traditional composition teaching model presented in most textbooks: we asked our students to fit a topic into a rhetorical form, to imitate a model essay, to outline their main points before writing, and to pay careful attention to the correctness of their grammar, punctuation, and sentence structure. We then corrected, commented on, and graded the finished products. But our students' often stiff prose, repetition of mistakes, inadequate development of ideas, lack of involvement in the topics, and lack of confidence in their ability to write well in English convinced us that this method was not meeting their needs or the goals of the course. (Spack & Sadow 1983, p. 576)

The above two quotations explain that the rhetorical approach did not work well for writing education. Against this situation, some researchers claimed writing as a unique activity for each writer to help them express their thoughts more freely. This direction became the expressionist movement, beginning in the early 20th century and reaching a peak around 1970. One of the leaders is Donald Murray, who considers writing a process to discover and clarify meaning. He opened the article “The Explorers of Inner Space” as follows.

Why do writers write? To inform, to persuade, to entertain, to explain, but most of all to discover what they have to say. The layman believes—and often writes badly himself because of it—that the writer has a complete thought or vision he merely copies down, acting as a stenographer for the muse. A few writers on rare occasions have reported such an experience—but only after years of thinking, reading, and craftsman-like writing. For most writers the act of putting words on paper is not the recording of a discovery but the very act of exploration itself. (Murray 1969, p. 908)

In this passage, Murray contended that writing is not a product, but a process of thinking, for nearly everyone. He referred to famous writers or novelists and also contended, “For the writer, writing is a process, a way of seeing, of hearing what he has to say to himself, a means of discovering meaning.” According to Faigley (1986), this expressionist movement was characterized by three qualities: integrity, spontaneity, and originality. Faigley explains the expressionist movement referring to Rohman’s definition of good writing:

This definition of “good writing” includes the essential qualities of Romantic expressivism—integrity, spontaneity, and originality—the same qualities M. H. Abrams uses to define “expressive” poetry in *The Mirror and the Lamp*. Each of these expressivist qualities has motivated a series of studies and theoretical statements on composing. (p. 529)

In brief, the expressivist movement proclaimed the importance of the writing

process and motivated writing researchers to investigate what and how writers think while writing.

Emerging Cognitive Science

Around the same time, cognitive science emerged in academic fields. After World War II, some researchers had difficulties studying the human mind in the then dominant behavioristic way because stimulus-response or one-on-one theories of behaviorism could not explain various human actions. Against this situation, they began new individual approaches to studying the mind; these later became known as “cognitive science (Gardner, 1985).” In 1956, ten researchers in various fields, such as computer science, electrical engineering, and linguistics, gathered at Dartmouth College, and coined the term “artificial intelligence.” Historically, this conference pushed cognitive science forward. Different from behaviorism, cognitive science takes into account dynamic relationships between human consciousness and the environment. In other words, humans and the environment affect each other and each gradually adapts and changes reciprocally.

Researchers of fields in the humanities, such as psychology and education, became interested in cognitive science because it allows them to analyze humans dynamically and longitudinally. Writing researchers and teachers also incorporated cognitive elements into their studies. In 1966, 47 prominent writing and composition scholars from the U.S. and Great Britain, including James Britton and James Moffett, gathered at a writing conference at Dartmouth College that later became known as the “Dartmouth Seminar.” They criticized traditional perceptions of writing and rhetoric-based instruction, embracing instead works of cognitive scholars such as Jerome Bruner, Alexander Luria, Jean Piaget, and Lev Vygotsky to introduce process and developmental features into writing studies (Dixon, 1969).

Janet Emig's Criticism

Through the Dartmouth Seminar, graduate students working on writing or composition were also influenced by cognitive science. Among them was Janet Emig, a member of the Harvard Graduate School of Education. There, she was influenced by teachers, such as George A. Miller, Jerome S. Bruner, and Roger Brown, at the Center of Cognitive Sciences at Harvard. She came to consider writing a multi-dimensional activity by learning through cognitive science that human activity is influenced by such elements as physical circumstances, social relations, and cultural history (Nystrand, 2006). In her first article, "The Use of the Unconscious in Composing" (Emig, 1964), she criticized traditional rhetoric-centered writing instruction for its simple way of teaching composition. By examining this article, we can learn what made Emig criticize traditional writing instruction and also what limited her research on writing instruction.

First, she drew typical writing instruction from a popular composition book.

In practice, as you know from your own experience, a writer begins with a general plan and ends with details of wording, sentence structure, and grammar. First he chooses the subject of his composition. Second, he tackles the preparation of his material, from rough ideas to final outline. Third, he undertakes the writing itself, once again beginning with a rough form (the first draft) and ending with a finished form (the final draft) that is as nearly perfect as he can make it.

These three basic stages of composition are almost always the same for any form of writing. Each of the three stages proceeds according to certain definite steps, listed below in order.

1. Subject
2. Preparation
3. Writing

(Warriner et al. 1958, pp. 379-380)

She criticized this description because she considered writing as a complicated, multi-dimensional activity, rather than the straightforward, linear process

explained above. Following this quotation she maintained,

If one were to believe this inaccuracy, the student-writer uncomplexly sits down, contemplates briefly what is left carefully unspecified, completely formulates this *what* in his head before writing a word, and then—observing a series of discrete locksteps in a left-to-right progression from planning to writing to revising, with no backsliding—builds a competent theme like a house of dominoes. (Emig 1964, p. 7)

Emig collected evidence from professional writers to secure her criticism against traditional writing instruction. For instance, she referred to Amy Lowell, mentioning that many writers need the subconscious.

Amy Lowell records this relegation:

How carefully and precisely the subconscious mind functions, I have often been witness to my own work. An idea will come into my head for no apparent reason; ‘The Bronze Horses,’ for instance. I registered the horses as a good subject for a poem; and having so registered them, I consciously thought no more about the matter. But what I had really done was to drop my subject into the subconscious, much as one drops a letter into the mail-box. Six months later, the words of the poem began to come into my head, the poem—to us my private vocabulary—was ‘there.’

I wish to score heavily the phrase “six months later.” The daemon, unlike the conscious self, is not always an efficacy expert operating on Western Calvin time. (Emig, 1964, pp. 10-11)

Emig quoted Lowell to claim that subconscious and atypical methods are vital to writers. Moreover, she mentioned that certain writing tools are often necessary, referring to Ernest Hemingway.

Here is a description by George Plimpton of Hemingway at work:

When Hemingway starts on a project he always begins with a pencil, using the reading board to write on onionskin typewriter paper. He keeps a sheaf of the black paper on a clipboard to the left of the typewriter, extracting the paper a sheet at a time from under a metal clip which reads “These Must Be Paid.” ... Hemingway shifts to the typewriter, lifting off the reading board, only when the writing is going fast and well, or when writing is, for him at least, simple: dialogue, for instance.

There are two more observations emanating from Hemingway's work habits. After an accident in which he severely injured his writing hand, Hemingway was quoted as saying that he feared he would have to give up writing, so crucial to him (as to many writers) is what might be called the manuality of the task—the physical necessity to feel a specific pen or pencil pressing against the fingers and palm in a wholly prescribed and compulsive way; the sense of sculpting, of hewing the word out against a paper of specific size and weight. (Emig, 1964, p. 9)

In other words, Emig observed that writing presupposes physical tools such as paper and pen, pencil, or typewriter. With this point about the physical environmental where humans act, she claimed that writing is not context-free. Indeed, writers depend on their own physical tools—as Vygotsky calls them “cultural mediation” (Vygotsky, 1987).

As mentioned above, Emig criticized traditional writing instruction and pointed out mental and physical conditions that writers heavily depend upon. She argued that writing teachers should face real situations where learners write assignments. Finally Emig drew on Stephen Spender's notion of “Mozartians” and “Beethovians.” Mozartians are those who are inherently genius, while Beethovians are those who work hard. Emig claimed that classroom learners are usually Beethovians, and therefore, the traditional writing textbook is too simple and inadequate for them. In other words, teachers should take into consideration context-sensitive writing characteristics.

In this article, Emig's claim is clear. She struggled with the circumstances of writing instruction; however, because no introspection data on learners existed at that time, she could not but choose to support her arguments with quotations and interviews of professional writers. Although her criticism of traditional instruction is likely justified, it is undeniable that connecting the introspections of professional writers to criticism of classroom instruction opens a wide gap. Presumably, Emig herself noticed the gap and faced difficulties in proposing an alternative view of writing processes and instruction. To advance

her arguments persuasively, she needed to collect learners' introspection data and use cognitive science to analyze that data objectively.

Conclusion

In summary, Emig criticized traditional writing instruction and instead utilized the introspections of professional writers. Although many advocates followed her cogent criticisms, anecdotal evidence from professional writers did not motivate further research. In the 1970s, on the other hand, a wide range of researchers and scholars invented research methods including "think-aloud protocol analysis," which Newell and Simon utilized in their main work *Human Problem Solving* (1972). After her first article, Emig continued studying cognitive science and eventually cleared a new path to studying learners' introspection during writing activities. In 1971, she published *Composing Process*, making her breakthrough research public. In my next research note, I plan to examine *Composing Process* in some detail.

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