Clinical report writing involves two interlocking processes—creation and communication. There are six stages of clinical inference that find parallels in generative writing stages: possessing a postulate system, constructing the major premise, observing for occurrences, instantiating (classifying) the occurrences, reaching a referential product, and predicting the significance of the inference and making recommendations. So, too, does the nature of the clinical procedure as a whole offer comparisons to generative writing procedure. An examination of clinical procedure offers three methodological implications for the composition teacher: (1) before beginning to write, students should be asked to articulate the assumptions that inform their world view, (2) students should be asked to enrich their contexts for writing, and (3) students' final papers should be evaluated as process as well as product. Past work in educational psychology and recent work in such areas as the cognition of discovery or hemispheric brain functions show that the "clinical connection" has already been recognized by educators in general and English teachers in particular as one worth pursuing. (HOD)
Clinician and Writer: Their Crucible of Involvement

by Helen Rothschild Ewald

In his article "Problems in Communicating Psychological Understanding," Fred Shectman, The Meninger Foundation, posits that failures to communicate often result from inadequate diagnostic assessment. Significantly, much of what Shectman classifies as diagnostic assessment implicitly involves certain phases of the writing process. What are the similarities between clinical procedure and writing process procedure? And what is the importance of these similarities as they relate to written communication?

I came to these questions as a teacher of writing, not as a clinician. Yet, the more I taught Clinical Report Writing, the more I realized the interconnections between clinical procedure and writing process. In this paper I will explore the "clinical connection" both as it contains insights into the composing process per se and as it offers a perspective on our professional opportunities as English teachers in the 1980s.

THE COURSE

First, a word about the course itself seems in order. Clinical Report Writing involves report writing in psychology and psychiatry. It thus attracts students somehow connected with clinical settings;
these students can range from the Head Nurse of the psychiatric wing of a local hospital to a student working toward a two-year Associate Arts degree with a specialty in alcoholism counseling.

The course entails audience/use analysis and features the basic procedures of information gathering, diagnosis and prognosis. Commonly, the clinical report writer must consider a dual audience, consisting of primary readers who have a direct interest in the client's case and of secondary readers who may, for example, use the client's case-history as datum for separate research. The finished clinical report, therefore, stands as both a recommendation and a reference for its respective audiences.

The clinical report also represents the end product of a process "by which the behavior scientist [or prospective clinician] proceeds from raw data to inference," a process through which new knowledge is created from information gathered.² (The report's data or information originates in "client" interviews.) Clinical report writing thus involves two interlinking processes: the process of creation and the process of communication.

As a communication process, it entails obvious similarities to the composing process of any writer. It involves working with audience, content, form, and style.

It is in the perception of clinical report writing as a creative process that interesting parallels develop between what the practicing or prospective clinician does as he/she deals with a client and what a writer does as he/she deals with a subject. Let's explore some of these parallels.
THE CLINICIAN'S AND THE WRITER'S GENERATIVE PROCEDURE

In describing the process by which clinicians generate new knowledge from raw data, Sarbin, Taft and Bailey write in Clinical Inference and Cognitive Theory of six overlapping stages of inference. These are: 1) possessing a postulate system, 2) constructing the major premise, 3) observing for occurrences, 4) instantiating (classifying) the occurrences, 5) reaching a referential product, and 6) predicting the significance of the inference, then making recommendations.

Of these six, the last five represent areas with clear parallels in generative writing procedure, namely: constructing a tentative controlling generalization, generating information, selecting that information which best supports the tentative generalization or discovering an alternative generalization from within the material, reaching a coherent relationship between the controlling generalization and the supportive information as expressed in a particular arrangement, and drawing up a conclusion.

The above point-for-point parallels in generative procedure suggest a common cognitive base, and support Frank D'Angelo's contention in A Conceptual Theory of Rhetoric that topics of invention reflect comparable conceptual operations, although D'Angelo's emphasis is on rhetorical patterns and not on generative strategies in general.

In any case, the first stage of inference, that of possessing a postulate system, warrants further discussion before the overall significance of the similarities can be established.
The postulate system as a procedural base

When a clinician engages in diagnostic assessment, he or she implicitly invokes a personal postulate system as a basis for inference making. This system, whether derived through inductive summation, deductive construction, analogical reasoning, or reference to authorities, forms the assumptive world which influences each of the subsequent five stages of inference mentioned earlier. It, for example, helps the clinician a "focusing principle" which guides the search for relevant information. Such focusing according to a personal postulate system involves asking questions such as: "What is the client in relationship to me?" (hostile, informative), "Who is the client in relationship to me?" (worker, child), "How well does he/she perform in relationship to my role expectations or valuational system?" and "Why does he/she perform as he or she does?"

The first two questions represent the types of questions writers ask in audience analysis; the second two represent those they might ask of their subjects: "How well does the topic relate to what I think is interesting or important?" or "How well does my topic reflect my social and/or ethical beliefs?" and "Why does the topic seem relevant to me?"

What is interesting here is the essentially egocentric nature of the questioning. It represents Kinney's triangle of self, subject, and audience, with the self involved at all points. In so doing, it does not feature the decentering thought so crucial by Piaget and others.
Such egocentric questioning to articulate his or her postulation, "How well does the client to my assumptions?", both clients must explicitly formulate those assumptions as a concrete measure of the client and the self-analysis as part of the self-analysis as part of the writers. On the other hand, not always forced to examine their assumptions before putting pen to paper. Their unarticulated assumptions than can emerge in their writing as unsupported broad generalizations, or as faulty causal relationships, or as the perception of the reader as the writer's clone, with identical understanding and experiences. These questions thus present themselves: Would student writers benefit from self-analysis before composing? Should writers be required to articulate their postulate system as a "pre-writing" strategy? Indeed, could these writers produce a clear picture of their assumptive world if asked to do so? The overall procedural model

If each of the six stages of clinical inference finds parallels in generative writing strategies, so too does the nature of the clinical procedure as a whole offer comparisons to generative writing procedure. Let's focus on two such comparisons.

First, Sarbin, Taft, and Bailey argue against an intuitive model of diagnostic assessment or inference. They maintain that just because certain clinical interpretations which seem to emerge
"out of the blue" can later be confirmed does not mean that "labels which suggest a process akin to revelation or intuition" are appropriate. Interpretive acts, they claim, have a natural history of pre-existing premises which, although implicit, strongly influence inference making.

Can the same be said of those moments of inspiration or insight a writer may experience? Are discoveries in writing necessarily anticipated by pre-existing clues in the information gathered or in the drafts attempted or even in the writer's past composing experience?

Traditionally, educators in general and English teachers in particular have been associated with the intuitive rather than the empirical. English teachers themselves are loathe to deny the intuitional in writing. Yet, crosscurrents exist which would put insights in writing on more analytical ground.

In "The Psychology of Language and the Teaching of English," Robert de Beaugrande maintains that good writing is not so much inventive as recombinational. Indeed, for good writers, these recombinations may seem spontaneous: "This paper just seemed to come alive and write itself." However, as Donald Murray suggests, perhaps good writers are constantly in a state of rehearsal. This rehearsal serves as a well-spring of creative clues or, to use a clinician's perspective, as a set of pre-existing premises, which quite naturally, even logically, elicits new combinations or discovery in writing.

What cognitive theorists state, in fact, is that inference itself is "the cognitive transformation of one set of events
through another set of events which produces new knowledge about the first." Their perception of inference bears resemblance to Kenneth Burke's concept of identification as "exploring the terminological limits of opposing positions and searching out the term at a higher level of abstraction which will allow opposing views to be reconciled."9

In any case, new knowledge or synthesis is achieved as a natural, rather than as an intuitive or mystical end to clinical and writing procedures. And, as such, the act of discovering this new knowledge can be seen as something which can be taught and/or learned.

Second, cognitive theorists note that variations or miscues in inferences as end products stem from various sources, including personal error, varying contexts, and differing interaction between clinicians and client. Whatever the cause of inferential error, clinicians discuss and evaluate inferential miscues by using each of the six stages of the inference process as "focal points."10

In other words, to evaluate inferences as products, the clinician examines, step by step, the process which generated the inference.

Does such evaluation of the product in terms of the process have application in writing? To be sure, much as been made of the process/product distinction in writing. "Teach writing as process, not product" has become a bromide for composition teachers. Yet, the corollary "Evaluate writing as process, not product" is not commonly expressed. A notable exception to this dearth can be found in the work by Kroll and Shafer on error-analysis, a process-based
approach to errors made by ESL students. Here, errors are seen as "windows into the mind" and as useful to both teacher and student.11 Admittedly, such a cognitively oriented perspective on error requires informed sensitivity. Indeed, how can the teacher gain access to the student's generative strategies, to the questions the student finds crucial while composing, to the process effecting the product?

Questions raised

The above examination of clinical procedure has introduced three primary questions which should receive more attention from the composition teacher: Would students benefit from self-examination as a pre-writing strategy? Is discovery in composing a natural outgrowth of pre-existing contexts? and Can a finished piece of writing be evaluated as process?

Let's assume, for the moment, that the answer to each of these questions is affirmative. What methodological implications ensue?

1. Before beginning to write, a student should be asked to articulate, as best as he or she can, the assumptions which inform his or her world view. At the beginning of the term, for example, a student could be asked to record statements which he or she believes are true. With each paper, the student could then be asked to relate one or more of these assumptions to the controlling generalization of each piece, and to note down any additions or revisions of these beliefs as they occur during the term.
2. A student should be asked to enrich his or her contexts for writing. Granted, it is not possible to tell a student, "Go out and live in the world a few more years and then come back to composing," or "Go out and read one-hundred books and write a dozen or so themes before returning to this class." It is possible, however, to construct occasions which encourage discovery or synthesis. For instance, a student could be asked to pose both a tentative generalization and an alternative generalization governing a single topic. Then the student could be asked to reconcile the two generalizations with a final thesis which could be specifically supported. Christine Barabas' work with idea combining also has currency here.\(^\text{12}\)

3. A student's final paper should be evaluated as process as well as product. A student, for example, could be asked to write down the questions which he or she found crucial in composing the paper, and to submit all such prep-work with the final draft. In addition, evaluative conferences could, in part, focus on the student's orally recalling how he or she reached the end product as submitted. In fact, recent literature on problem solving supports the idea that telling a person how people do do something is much less effective than telling that person how to do it.\(^\text{13}\) In other words, telling a student how you have solved the problem in his or her text, or how peers may have solved a similar problem, is less effective than reviewing the process involved in reaching a particular solution or draft. If the student's produce is flawed, the student's method for reaching that product should be examined.
The suggestions above are tentative. Certainly, additional research, into how the clinician proceeds while making and evaluating inferences for instance, may well generate further pedagogical approaches.

A CONSULTATIVE ALLIANCE

Clinicians themselves are expressing interest in the benefits that interdisciplinary study and cooperation can bring. Sheetman's call for a "consultative alliance" that is "as essential for non-clinicians and their crucible of involvement as for diagnosticians and their patients"14 embodies, I believe, a challenge to English professionals to expand their "crucible of involvement" to include those insights into communication which the clinical fields can provide.

Past work in educational psychology and recent work in such areas as the cognition of discovery or hemispheric brain functions show that the "clinical connection" has already been recognized by educators in general and English teachers in particular as one worth pursuing. Moreover, scientist Frederick Reif has recently proposed intensive research into the domain of "human cognitive engineering" which would deal with prescriptive aspects of human information processing and would bridge the "gap" between the approaches of cognitive scientists and educators.15

At this point, I too would like to suggest briefly yet another area for potential collaboration: neurometrics.
"Many data show that brain electrical activity reflects subtle aspects of brain functions including information processing and cognition." Neurometrics is a means of measuring that activity.

Neurometrics was originally used for diagnostic assessment of learning disabilities to determine whether the disability had a physical rather than an environmental or emotional base. More recently, it is being touted as a means of measuring intelligence, especially verbal intelligence. In the future, I would submit, neurometrics could be used to measure the effects of certain materials or methodologies in teaching skills involved in information processing. As such, it could be a valuable tool for those of us teaching writing, a skill which surely entails information processing at core level.

The pedagogical applications of neurometrics are not yet known for a surety. It will take both the clinician and the educator working together to form a diagnostic assessment of neurometrics as a pedagogical aid.
NOTES


3 Clinical Inference and Cognitive Theory, pp. 145 ff.

4 Clinical Inference and Cognitive Theory, p. 81.


8 Clinical Inference and Cognitive Theory, p. 45.


10 Clinical Inference and Cognitive Theory, p. 223.


15. Reif, p. 42.
