In this paper addressed to graduate students in reading, the nature and problems associated with graduate student research are described. It is noted that the purpose of research is seen in different ways by those engaged in it. However, regardless of how a profession defines research, it must contain and reflect scholarship; any other research is vacuous and pretentious. There are four pathways to initiate graduate students into research functions: inquiry, observation, cooperative effort, and consistency. In addition, graduate students should not be satisfied with what they are told. They should explore, probe, and ask questions. By being resourceful and persistent, young faculty members and graduate students can find opportunities and sources of funding for research. Armed with a well-founded idea, in part based on readings of the original research in the topic area, all that is required to pursue funding sources is organization, energy, and enthusiasm. To earn and deserve credibility, researchers must also produce well-written manuscripts within specified deadlines, and limit their efforts to two or three themes throughout their career. Obstacles to the researcher, such as poor training, lack of time, and inability to see problems or issues that warrant research can be overcome by independent study, time management, and further reading in the subject area. The researcher must acquire the convictions that only through research can truth come, and that truth emerges through the shared findings of many. Finally, conviction, faith, and patience will help shape the quality of future reading research and instruction. (CRH)
It has been twenty-two years since I can legitimately claim a complete identity with this audience. With the completed degree in hand, I then joined the category of the lifelong learner. However, I have retained part of that social reality through and with the assistance of many able and talented graduate students. It is through their optimism that I have retained some subjectivity with a group similar to this one.

During those years, I have observed the research thrust of the reading field move from decoding to early reading to grouping plans to methods of reading instruction to comprehension. Of course, other matters were of concern to the profession but those just mentioned were probably the major emphases for research within my professional time frame. Many would arbitrary state that the present research thrust is where we should have been all along. However, when we consider the pendulum swings from decoding dominance to
comprehension centrality, we might do well to be mindful of Werner Heisenberg's principle of uncertainty in quantum theory: that given two positions and their movement, we can know both, approximately, but the more we know about one, the less we know about the other.

If quantum mechanics is correct, then the research probabilities in both decoding and comprehension (and related matters) are likely to be the subject of reading research for some time to come. But before we get too far from aside from my suggested topic, let us deal with my first point on today's topic: What 'meaning' does the term, research, have today?

'MEANING' OF RESEARCH

Unfortunately, I cannot answer that question with any sense of precision. Within my experience the term, research, has garnered many different possible meanings. Too often, I think the term has become more reflective of a person's style than of substance. I have heard the term used in several different ways representing different styles of 'research'.

There are those who think research is -

- for getting external funding
- for writing grant proposals
- for eliciting contracts
- for personal interest (mini-projects)
- for an activity to have "something" to present at a professional conference
- as a conversational self-aggrandizement device
- for writing an article — any kind of publication
- for the dissemination of other peoples' ideas and their findings
- for writing reviews of literature on a given theme
- for writing an article, usually the 'opinion' or 'I think' type of prose
- for a systematic strategy of hypothesized search

When I was a graduate student, the concept of research was, in the main, the last item in the above list — a systematic strategy for hypothesized search (formal, informal, or even a flimsy 'hunch'). However, times have changed and they will continue to change. What constitutes research is likely to remain like the metaphor of 'beauty to be in the eye of the beholder' and the professional space you find yourself in the future. Regardless of how your future professional space defines research, there is one point I think is paramount — no matter the definition: IT MUST CONTAIN AND REFLECT SCHOLARSHIP — otherwise it is vacuous, empty, void, pretentious. Imprecision of scholarship is the quicksand of research.
GETTING STARTED

Four pathways might guide our initiation (and continuation) into research functions. They are through the channels of inquiry, observation, cooperative effort, and consistency.

Channels of Inquiry. We are, in a sense, victims of our own compressed and highly formalized system of education. Our schooling has too often suppressed curiosity. When one becomes a graduate student, they should in a strange way have come full circle back to their childhood. When little children are growing up and beginning to talk, to look around, to take note of things, they display one rather common characteristic -- they are inherently inquisitive. "Mother, what is that man doing?" "What for?" "Why is Wednesday?" "Are there baby policemen?" And so on, over and over and over again, and mother, tiring, finally says, "Go ask you father." Father says, "Don't bother me now (implying they are foolish questions). Keep still. Go out and play."

We put children in school; we tell them not to talk, to wait -- in fact, we do many things that seem to stop this flow of questions from these little bright minds just beginning to gain experience and to really notice the world. And so we make them like the rest of us, so glued to some little objective or limited interest that we do not notice the
world, let alone ask exciting questions about the accepted and the apparent obvious. Then at last they come to graduate school and we look at their passive faces and say, "For heaven's sake, be curious! Don't be satisfied with what you've been told and with what you are told -- explore, probe, ask questions. Ask questions! Ask questions!!"

Channel of Observation. Several years ago (1972), Eleanor Criag wrote a little book entitled, P.S. Your Not Listening. I regard the words in that title symptomatic of what is needed in reading research (and teaching). We need to listen and observe students and teachers in learning situations over and over again. I am convinced that the evidence is there if only we knew what to listen for and what to look for.

Now you say observe and ask questions -- about what. Anything! Any known piece of information, any "obvious" fact, strategy, technique, and so on, no matter how time honored it may be or by however prestigious the person claiming the position. (Einstein in his debates with Bohr was wrong about quantum physics!) There enormous gaps in our knowledge about everyday common procedures in teaching reading. In some instances, it may be not so much what we don't know; it might be what we know that is inaccurate and ineffective which may need some correction or adjustment. How do you know that -
you should or should not use "round robin" reading

- words should or should not be introduced in isolation (if so, under what conditions?)
- you should set purposes for reading (under all conditions?)
- the length of the silent reading unit (SRU) (what about it relationship to attention span, coherency, and time IN the task).
- seatwork is effective and how to make it that way.

Look in the literature at the original studies. As graduate students, you have read so many findings that have been compressed into textbook summaries that the approach and findings leave false impressions. Perhaps some items in those summaries are representative of the comment of the frontier editor in the film The Man Who Shot Liberty Valence, "When there's a conflict between the facts and the legend, we print the legend."

Such summaries also dull our experience for re-discovery. I will never forget the time that, while at Ed Dolch's base institution, I looked up his original publication for the Dolch 220 Sight Vocabulary List. I was disappointed with his research strategy and even more with the given outcome. Only 193 words were derived by his
research design, and then he just added 27 more to reach the magic number (marketing value) of 220. I have found that what we have been told and what we have been led to believe is not what it always appears to be (or the summaries of research alluded them to be).

**Channel of Cooperative Effort (Resourcefulness).** Most institutions have supportive and cooperative agencies which encourage young faculty members to become involved in research. However, a little resourcefulness on your part is a must. You must search them out with positive aggressiveness. Graduate Schools or Graduate Offices on most campuses have books, bulletins, flyers, and all sorts of information for all researchers and potential researchers. On my own campus, the Division of Sponsored Research distributes to all research faculty a monthly newsletter (FYI) supplying information about grants, fellowships, contracts, request-for-proposals (RFP's), upcoming application deadlines, etc.

Many institutions have 'seed' money for beginners to start a research project. These 'mini-grant's' often provide for limited equipment expenditures, graduate assistant support, and small amounts for travel to and from the research sites.

State Departments of Education frequently sub-contract work to be done for the given state. Take a visit to your state Capitol and meet the personnel in the departments most related to your work. Keep in contact with them throughout
the year to see 'what's cooking' during and after a legislative session and the types of needs they are required to produce in the near future. Funding, while not plush, is rather significant and very helpful to the beginner.

My own observation is that with a significant amount of resourcefulness and persistence, opportunities for research are available. Armed with a well founded idea, what is required here is organization, energy, and enthusiasm.

**Channel of Consistency.** Take inventory of your interests and strengths in your own area. You are not likely to be all things to all people. Do those things you can do with a quality performance and you can complete on time. Nothing destroys your credibility with supportive agencies faster than producing a sloppy manuscript with poor scholarship or even a quality product well beyond the given deadline.

Those researchers which have become highly visible are usually individuals who have restricted their efforts to two or three themes throughout their careers. Their research and publications reflect a focus and a sense of concentration on something they know well. They have and deserve credibility, because they are usually one of the truly expert individuals on that topic. In contrast, the dabblers, the jack-of-all-trades, the 'shotgunners', develops a vita that is wide, varied, and too often shallow. They, indeed, become the 'writers-on-all-subjects' and masters of none. They are like feature writers and it usually shows.
OBSTACLES AND CHALLENGES

First, let us briefly consider some of the obstacles facing our entry into research. Some major ones are:

- lack of our own training (poor courses, course selection, etc. in graduate school).
- lack of confidence with or without a good research training background.
- lack of time (too heavy of teaching, advising, or service loads).
- lack of funds
- control by vested interests (when research minded people are told what to do, they are employees, not independent research workers).
- lack of ability to see problems

Given that these common obstacles exist, there are avenues to overcome them, singly or in combination. Poor training can be offset by further independent study, by writing for research papers from IRA, NRC, and AERA and by studying them for the designs used, not necessarily the content. Such activities on your part will, also, subtly increase your confidence.

Lack of time can be compensated for by time management techniques and by careful scheduling — teaching multiple sections of the same class (reducing preparations) and
arranging classes to meet on two or three days of the week (giving free days for research).

Regarding the obstacles of funding and vested interests, I will leave to the next speaker on the program.

The inability to see problems can partially be alleviated by wide, wide, reading. Empty heads cannot begin to see problems or issues. Some of these types plunder into topics of research, that if they had done their homework, they could have gotten a better quality conclusion from an a priori approach. There is no substitute for scholarship. Your reading should create a dialectic -- i.e., internal contradictions, within you causing you to feel and to see items, however, common that need to be clarified or resolved -- remember the Dolch list (mentioned above). Choose topics with interest and fascination for you, within your spectrum of two to three themes.

However, it could be true that we master our own discipline only when we can stand outside of it. As long as the discipline is in us as a set of principles and habits according to which we act, judge, and think, we are captured by it and are its victim. One scientist is said to have urged each graduate student in his field to take courses in poetry -- not that he, the biochemist, had any particular regard for poetry, but because he thought poetry might jar the students' imagination and free them conceptual captivity.

Maintain a steady interest in research -- your own and others. Encourage others as well as yourself.
Apply your own research findings and the findings of others, gained through your wide reading, to your teaching. If you don't have confidence in your findings enough to share it and teach it to others, then it is of dubious value.

CAVEAT

We, in reading, must acquire, first, the conviction that only through research can truth come, and second that truth emerges slowly from the shared findings of many. Three words express my point: faith -- faith in the process of research; commitment -- to your selected themes and the topics of others; and patience -- expecting little reward when progress does occur, and then perhaps, in time, your efforts will find their place in the great mosaic of reading research.

However, you must learn to do these things in an environment that is implicitly competitive; in an environment of politics and jockeying-for-position; and in an environment in which these factors influence your salary, promotion, and tenure. However, with truth, conviction, faith, commitment, and patience -- lots of it -- you will make it like many before you. Let us hope that you make it easier, bigger, and better than those who marched before you. The quality of future reading instruction depends upon it.