Distant Neighbours:

The relationship of research to teaching

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The relationship between researchers and teachers has never been a good one. The following two quotes will illustrate this:

> For most of its history, language teaching has been at the mercy of pronouncements from self-styled experts. It has suffered from the misapplication and misinterpretation of theory and research from other disciplines. In recent years, these other disciplines have included theoretical linguistics and its various applied offspring, behavioural, cognitive and humanistic psychology, first- and second- language acquisition, sociology, information theory, systems theory and educational technology. It has also been at the mercy of numerous applied linguists who have foisted their frequently untested or inadequately tested theories on the profession. This has led to a number of undesirable outcomes. Instead of a cautious programme of research and development, the profession has been characterized by a series of fads and fashions. Armchair speculation has spawned competing untested (and sometimes untestable) assertions about the nature of second-language development inside and outside the classroom. (Nunan 1988: 174)

> Priorities for research too often reflect the interests of academic researchers or central administrators not school people... The tacit knowledge of teachers is devalued. Many of the findings are recorded in a form and style which is accessible to the trained researcher but fails to communicate to teachers, school administrators, parents or advisory people. The primary audience for research has been the research community not the practising teacher. Not surprisingly, we the practising teachers have come to distrust and reject theoretical research and the researcher who takes but does not give. (Beasley and Riordan 1981: 88)

So, teachers regard researchers as people who speculate about teaching, while they actually get on with the job. They regard them as being out of touch with actual problems in the classroom. They see them as self-interested individuals who take, but do not give; who disregard what the teacher has to say; and who offer half-baked theories that do not either explain what goes on in class or provide solutions for everyday problems.

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Researchers, on the other hand, regard teachers as less well qualified academically and incapable of recording or analysing their day-to-day work with adequate rigor; they believe that they have not read enough of the recent works and articles related to language teaching in the international forum of academic discussion to be capable of joining into that discussion with a suitably informed opinion.

It is not surprising, in this atmosphere of distrust, that communication between the two communities is poor; and that educational research and teaching remain, as the title of this article suggests, distant neighbours (a phrase I have borrowed from the book by Alan Riding about the relationship between the United States and Mexico).

The relationship of research to teaching. A simplistic view would have it that research is the creation of knowledge, while teaching is the transmission of knowledge. This is an unsatisfactory statement from many points of view and one that could mislead educational planners into committing serious errors.

The fallacy lies in the conception of knowledge and the nature of knowledge.

Knowledge is not, as many people might think, a coherent system of ideas, universally available and continually updated by frequent additions from researchers all over the world, working in harmony, in an eternal quest for truth. For a start, ideas or scientific theories are not very often congruent: Indeed, more often they are rivals. That is the very heart of scientific debate. Scientists challenge each other's theories or cast doubt on them or refute them altogether. In order to do this, they adduce evidence, often gathered by themselves, to prove their cases. This amassing of contradictory theories and evidence is standard scientific practice. What confronts the novice breaking into a particular field for the first time is not order, harmony and unassailable truth, but chaos, discord and considerable doubt.

Nor is knowledge universally available. It is often restricted to small groups of researchers or to isolated geographical areas, even in this era of modern communications. Scientific research is often conducted with considerable secrecy until the moment arrives when the researcher believes that it is expedient to publish. A great deal of private correspondence between colleagues takes place several years before publication. Rival groups and individuals struggle for prestige; institutions exert pressure to conform to certain

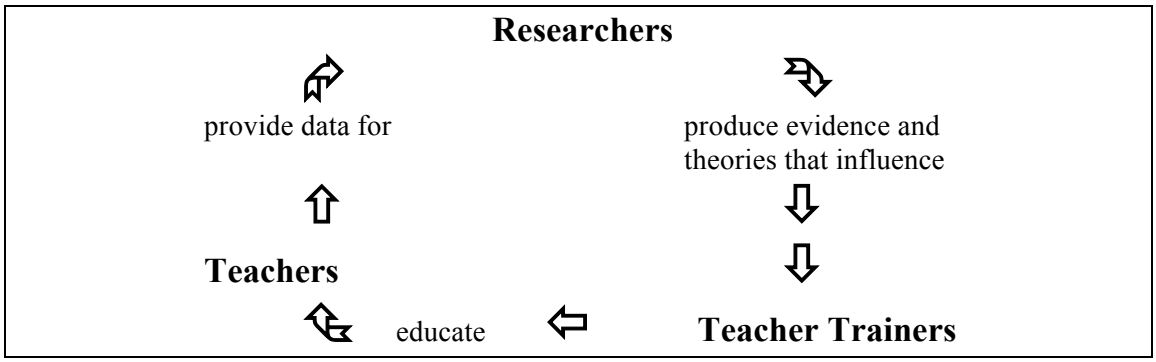
schools of thought; and governments and business interests all to frequently dictate priorities by channelling budgets into areas that interest them most.

To make the situation even more unsatisfactory, the modern age of scientific enquiry has injected a further element into the scenario: that of indecent haste. Scientists are no longer like medieval monks, closeted with their manuscripts for a lifetime, with endless time to read, reflect and philosophise. They are under constant pressure to publish in order to survive. Jobs may depend on it. Doctoral theses have to conform to time limits. Bodies that award grants or scholarships, before handing over the funds, demand in advance an established programme with deadlines and projected results. We live in a consumer society that is run by economists who think of science and education as investments and products.

At the frontiers between accepted scientific truth and the unknown, therefore, we find a mass of conflicting theories and evidence. There is seldom a solid construct that can be immediately applied with confidence to modern practice. Knowledge is not simply the total accumulation of research findings; it is far more diffuse and self-contradictory. Knowledge, at least in the field of education, is based on the experience of practitioners, unsystematically analysed and partially shared between colleagues. Superimposed on this base, and partly parasitic of it, we can detect the influence of scientific research and theory. And the picture is further obscured by commercial interests, primarily that of publishers, who force half-developed theories upon practitioners as if they were established truth. Practicing teachers can therefore intuit and believe and judge to the best of their ability, but they cannot know.

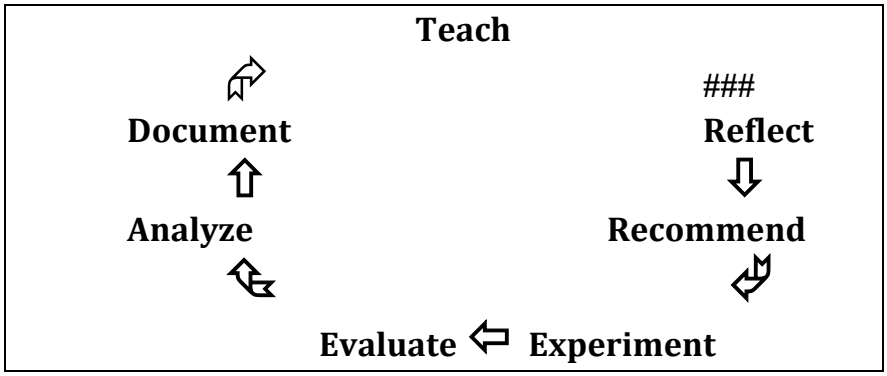
If research is then not truly the creation of knowledge, how can teaching be the transmission of it? Teachers cannot transmit facts other than the most simple and trivial ones, available at the level of common sense experience and normal human logic. Teaching is better viewed as instruction in procedures of enquiry and analysis, and as conscienceness-raising, rather than the transmission of already analysed and packaged knowledge.

Furthermore, in our field, we have a triangle of processes: research and theory; teacher education; and teaching. The following diagram illustrates this:



Teacher educators interpret the work of researchers and theorists; teachers, in turn, provide the raw material for further research. However, in the very nature of the academic establishment, there is a hierarchy involved: Successful teachers aspire to become teacher educators; and teacher educators often eventually become researchers. However, it is seldom that researchers become teachers. The process is one way. It is the unsatisfactory nature of this relationship that has led many in the field to advocate action research as the way to make suitable progress and to even out the power relationships in the system.

Action research. Action research is simply research performed by the teacher on his own teaching. But it is much more than this. Most teachers are informal researchers anyway: That is, they continually experiment with their own approaches to teaching and try to find more successful ways of getting their students to learn.



Action research is both a policy and a philosophy.

Philosophically, those who promote action research place a high value on the teacher's intimate knowledge of teaching and on her or his intuition and professional judgment. It is the teacher, they argue, who is the closest to the process and can speak with most authority. The teacher has the best motives to find out

about teaching, because she or he wants to do it better. And they moreover believe that the teacher, although perhaps not as erudite or as adept in engaging in academic debate, is perfectly capable of carrying out effective research and documenting this so as to make a significant contribution to the field. The philosophy of those who favour action research therefore has a tendency to demystify traditional academic processes and revalue the capabilities of the practising teacher.

As a policy, the promotion of action research sets out to organise practicing teachers into networks of collaboration. It is not enough for teachers to carry out research into their own classes; they must also share this knowledge with their colleagues and build on the collective knowledge that results. Action research properly conceived is systematic and purposeful (adjectives that cannot always be so readily applied to traditional academic research, unfortunatley). As a result of this policy, action researchers will enrich themselves professionally, form closer bonds with their colleagues and make a contribution to the field that educational planners can only ignore at their own risk.

It will be clear from the above remarks that I am personally in favour of action research. It is more than a series of recommended procedures: It is essentially a political and professional movement. It breaks with the tradition of an academic hierarchy that ensures the maintenance and control of professional dogmas by the few most powerful voices in the establishment, however bitterly they may squabble among themselves in their struggle to climb higher up the pyramid. It rejects the idea that "experts" should dictate to the "non-experts"; and that teachers, classified as a mere work-force, should have no voice in the development of their own profession. Academic debate should not be so esoteric as to require interpretation by the few for the many. Teachers are the profession; and researchers can in many cases quite rightly be seen as parasites of this profession.

However, I am not so starry-eyed to believe that it would be easy to promote action research in Mexico at this moment in its history. Even in developed countries, action research movements have met with a frosty reception both from professional teachers and from educational authorities. There are at least two reasons for this: Action research denies that professional training is complete upon graduation and it challenges the authority of those above. It upsets the bureaucratic conception of educational planning to entertain the thought that what the experts ordain is not perfectly feasible and destined to succeed. It shatters the neat system of academic degrees and qualifications by asserting that teachers are also learners and that theorists, in turn, can learn from teachers. Yet, the absurd thing is that these assertions are so obviously true. Nobody but an

imbecile would suggest that one cannot learn outside of school. No plans in the world have ever proved to be perfect. Theorists about teaching cannot cut the teachers' knowledge out of their work altogether without a total loss of credibility. Be this as it may, action research movements in developed countries have in the past been effectively isolated by the authorities and their work shelved indefinitely.

However, there are other more practical reasons why action research is difficult to establish, even within a small teaching institution. It costs a lot of staff time. It would take years to produce tangible results in the form of a systematic curriculum. It requires organizers from outside that would need authorization, as well as financial and administrative support. Such organizers, being outsiders, would initially lack credibility in the eyes of the teachers. Finally, it is almost inevitable that the recommended curriculum, procedures or approaches that the action researchers would come up with would run into numerous objections on the grounds of practicality, in terms of institutional time, resources or control.

I am not saying that action research is doomed from the start: It has already had a significant impact in a number of countries--in Australia, for example. It remains an ideal and symbolises a philosophy with which I identify, but it is fraught with practical difficulties. Introducing it to Mexico will be problematic. And it may be some time before it can become accepted where it is most needed -- in public education, especially.

At the same time, in spite of my disparaging remarks about researchers above, I do not wish to dismiss traditional academic research and debate as either misguided or invalid. On the contrary, it is here that hope for professional development in the near future lies. I do, however, have some reservations about the structure of the academic establishment and the predominant research paradigms in our field.

Let me summarise my position up to this point:

(1) The relationship between research and teaching is an uncomfortable one, poisoned by mutual mistrust.

(2) The conception of research as the creation of knowledge and of teaching as the transmission of it is so misguided to be virtually dangerous.

(3) The academic establishment casts teachers in the role of a work-force that has to do the bidding of its research/theory managers; a relationship complicated by the presence of commercial interests.

(4) Action research offers us a possible way out of this predicament.

(5) However, action research involves many practical and other difficulties.

(6) In the short term, therefore, traditional research continues to offer the best hope for professional development, but a change of approach is needed.

We will now consider the case of traditional research.

Traditional research. In the social sciences, within which we can include educational science, there is a basic dichotomy between two different kinds of research tradition. This dichotomy can be illustrated by the series of different labels that writers have attached to it. The following list of adjectives will make my point clear:

	Dichotomy of research types	
	Quantitative	Qualitative
*	Hard	Soft
	Objective	Subjective
*	Rigorous	Speculative
	Observer-oriented	Interpretative
	Experimental	Heuristic

I have placed asterisks against those words that are heavily loaded with value judgments. Nevertheless, as I will demonstrate, most of these adjectives contain biases that are potentially misleading. Much qualitative research, for example, contains elements of measurement. How objective is "objective" research really? Does it not contain subjective observer bias? We know, as teachers that have set "objective" tests, that, while the grading may be objective, the setting is often subjective.

Some people would like to add the pair: Deductive vs. Inductive. However, I would argue that all scientific enquiry is both inductive and deductive. We induce facts about our field of observation that lead us to form hypotheses and we then test these hypotheses by observing specific events. The process could be

considered to be a continuous dialogue between inductive and deductive reasoning.

The last two pairs are perhaps the most interesting. Observer-oriented research relies on the prior reasoning of the observer to organize the research in terms of preset concepts. Interpretive research, in contrast, is concerned with the interpretations that subjects make of their own and others' actions. These are radically different research positions. Similarly, experimental research attempts to manipulate live human interaction by controlling certain conditions while measuring others. Heuristic research, on the other hand, sets out simply to find out what is going on, without preconceptions about what might happen.

To distinguish the two different research paradigms, I will employ the terms, positivist and interpretative. Positivist, as a term, covers the column of adjectives on the left of my diagram; interpretive covers the column on the right.

The mid-nineteenth century social scientist, Auguste Comte, founded the positivist movement by proposing a science of human behaviour that investigated causal relations between events in the same way that Newtonian physics set out to explain the relations between physical phenomena. Human phenomena are to be subjected to logical and mathematical reasoning so as to arrive at an explanatory theory. The essence of this movement is isolating objectively observed events, considered to be scientifically acceptable facts, and constructing a theory that can account for the causal relations between them. The driving power behind this movement in the social sciences is the conviction that objective observation and measurement of human events can be processed by pure reason (logic and mathematics) to result in theoretical models that are scientifically rigorous (i.e., "respectable") and can be put to the test by reliable experimental means. In other words you observe your human subjects and record, over a period of time, a series of objectively verifiable events; these are then submitted to logical analysis and produce a theory of causal relations; the theory is in turn put to the test by controlled experiments. The results of experimentation lead to confirmation or modification of the theories in question.

As language teachers, we are familiar with the results of this process in the form of behaviourist theories of learning and teaching.

The present disenchantment with behaviourist models of language learning lies mainly in the fact that they deal with surface phenomena rather than underlying structures. Whether you are a Chomskyan rationalist or a humanistic psychologist, you will disagree with the failure of the behaviourist approach to

get to grips with human mental processes. Probably most of us would agree that it make no sense to disregard the fact that humans have the free will to make choices. This goes against the mechanistic determinism implied by positivist science. In essence, human beings are different from machines. Secondly, motivation cannot solely be explained in terms of reward and punishment. Humans are far more complex and have been subjected to a process of integration into social groups--something that we call socialization. We therefore have to take into consideration the complex dynamics of interaction at the level of the family, the school and society at large.

Be this as it may, positivist models of research have dominated the social sciences until relatively recent times. And they are still prevalent in many schools of educational science in Mexico, the United States and Europe.

In the case of educational research, they are characterized by the division of human events in the classroom into predetermined categories. These are then subjected to observation and measurement. That is, the researcher counts them to see how often they occur. The numerical results are then subjected to statistical analysis and correlations are produced to posit causal relation between events.

To see this in action, let us look at a hypothetical example of "successful" positivist research.

An example of "successful" positivist research. Imagine that a researcher has, on the basis of prior observation, established a number of categories of different classroom events. In other words, he/she has made up a list of all the different things that can happen in a classroom. Perhaps the best known advocate of this approach was Flanders working in the 60's and 70's, though it was used by others before him and certainly has been used since.

Let us imagine that this researcher identifies a strong positive correlation between a certain type of classroom event, having students work in cooperative groups, for example, and end-of-semester exam results. The researcher has found that when the teacher conducts a lot of cooperative group work the students do better in the exams. He/She is therefore tempted to speculate that group work causes good exam results.

Let us further imagine that the educational authorities take up this research result and decide to apply it to teaching policy. Teachers in their schools are recommended to use more cooperative group work in class. In due course, it is found that the exam results as a whole do in fact seem to improve. It is now considered to be proved beyond doubt that the theory is correct.

Criticism of this approach. What can we conclude from this study?

Well, let us assume that the research was well conducted and duplicated by several people in different circumstances so that there genuinely does seem to be an irrefutable correlation between these two phenomena. The only thing that we know from this research (and I use the word *know* advisedly) is that there is a correlation. We know absolutely nothing about the causal links in the chain from one phenomenon to the other.

I heard recently on the radio that researchers have demonstrated convincingly that people of higher income groups have colds more often than those of lower income groups. At first sight, this is interesting, but on reflection, the finding is frustrating to anyone of intelligence, because we still have no knowledge of the most interesting part of all. Why does this happen? Exactly the same frustration results from positivist research of the kind I have exemplified above. What we want to know is why and how theses two phenomena are related. And as to this we can only speculate.

It is perfectly true that not all positivist educational research is of this type. However, if you consider some of the psycholinguistic research being conducted currently, arguably of great significance to our field, you will recognise that it contains similar features. Elicitation techniques and measurement of mean utterance length share positivist tendencies. The emphasis is on recording and measuring observable events.

It seems to me that this type of research is misconceived. In the interests of "scientific rigour", we remain blind to the most interesting part of the whole process. The problem is that we are what we are most interested in. Unfortunately, in order to study these processes, we must abandon our strict adherence to studying what can be observed and measure. Does this mean that interpretive research methods are "unscientific"? I think not. And in the final part of this paper, I will attempt to show that this is the case.

Interpretive research. Th two most familiar methods used for interpretive research are participant observation and case studies.

A large number of ethnographic studies of school or classrooms have been carried out. These studies, based on methods that have been given scientific respectability by social anthropologists and sociologists, beginning perhaps with Malinowski, are carried out by a researcher as participant-observer of the educational setting. That is to say, the researcher participates in the life of the school or classroom, in some cases as a normal teacher; but at the same time observes what

is happening around him or her in considerable detail. Such a researcher keeps a journal and detailed records of everything that occurs, recording not only her/his impressions, but those of other participants. Apart from routine observation of the setting, the researcher might also conduct interviews with field participants and will certainly record by means of photocopies, photographs, video or sound recording any other aspects of the situation that are relevant to the study. What results from this type of research is an immensely rich collection of data records for subsequent or concurrent analysis. However, mere data collection is not research: The researcher also has to interpret the data and discover regularities or structures within it.

Case study research has similar goals but is conducted with an extremely limited number of individual subjects. Case study researchers have to form a good working relationship with their subjects and facilitate a very free exchange of views. It is not unlike the relationship between a psychotherapist and patient. This type of study conducted on teachers or students can reveal a great deal about the why's and how's that positivist research cannot reach.

All interpretive research is concerned with studying events from the subjects' point of view. The researcher, as an outsider is concerned with local meanings, individual or group interpretations and what events mean to the people under study. It is not appropriate to pre-categorize events, since this is in effect prejudging what is going to happen. Such a researcher has to have a very open mind about what he/she is going to find. And I would argue that the findings are very often more surprising than those of positivist research precisely because they are not guided by preconceptions.

But surely, you will argue, this is not scientific research. Vague reports and subjective journals are no substitute for rigorously collected data, scrupulously measured and subjected to sophisticated statistical analysis. How can we interpret such findings? How can we apply them to our profession?

There is no very satisfactory reply to this type of reaction. It would be best to invite such a skeptic to read some of the work of researchers of both types and see which he/she finds most convincing. Both types of research are valid. They answer different types of questions. Some academics may be more inclined towards one type than another. It would be unfortunate, however, if the choice were made for reasons of dogmatic defense or--worse--fashionable trend. It is my belief, as an interpretive researcher, that too much educational research is locked into a positivist tradition that will deny it the answers that we need.

And in our field we are looking for answers to fairly specific questions. We urgently need results. As the quote at the beginning indicated, we are slightly frustrated by half-baked and speculative theories that fail to help us do our job better.

It is my conviction that interpretive research can bring us closer to the answers that we are seeking. And I would strongly urge those who are engaged in research or are responsible for promoting it to encourage serious consideration of alternative research paradigms.

Conclusions. As we approach the twenty-first century, I cannot help being disquieted by the failure of traditional academic research to throw much light on the language learning process.

Some of the most impressive and up-to-date minds in the business are now more or less conceding that there is probably no single theory that can account for the various phenomena of human language or for the process of acquiring it. There is a series of partial theories that can account reasonably satisfactorily for different aspects of language. This situation is no different from that of physics, where there is no grand unified theory to account for both quantum mechanics and the physics of large bodies. (I base this assertion on Stephen Hawkings' account in his book *A brief history of time.*)

In our case, however, it seems to me that much of the failure has been caused by competition between rival disciplines, each of which claims to hold the solution to our problems.

I also believe that research has been far too cold and clinical, in the tradition of Western universities. I would like to see research get close to teaching itself. One way to do that is action research. Another way is interpretive research. Both these approaches are worth pursuing if we wish to find results that can immediately be applied to our work.

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Recommended Reading

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