Theory and practice in management education: A perspective for Business Schools

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It is argued that the effective teaching of management requires both students and teachers to be involved in collaborative research of one kind or another. This, in turn, requires an integration of theory and practice in which students and teachers jointly; apply research-based generalizations to a variety of situations based on their diagnoses of those situations; modify these generalizations on the basis of their success or failure in application, and apply the modified generalizations to still further situations — a circular process that lies at the heart of any research effort. A number of practical suggestions are made for the attainment of this kind of integration between teaching (theory) and learning (practice). The integrative model proposed in this paper is contrasted with the traditional model, in terms of which research conducted by independent researchers stands apart from teaching and the practical application of knowledge.

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Dit word aangevoer dat effektiewe onderrig van die bestuurskuns van beide studente en dosente vereis dat hulle in samewerking by een of ander navorsingsprojek betrokke sal wees. Dit vereis weer 'n integrasie van teorie en praktyk waarin studente en dosente gesamentlik, navorsingsgebaseerde veralgemenings op verskillende situasies, na gelang van hulle diagnose van daardie situasies, toepas; hierdie veralgemenings op die basis van hulle sukses of mislukkings in die toepassing daarvan wysig, en die wysigings in verdere situasies toepas — 'n kringloopproses wat betrekking het op enige navorsingspoging. 'n Aantal praktiese voorstelle vir die bereiking van hierdie soort integrasie tussen onderrig (teorie) en leer (praktiese toepassing) word aan die hand gegee. Die geïntegreerde model wat in hierdie artikel voorgestel word is in kontras met die tradisionele model, in terme waarvan navorsing deur onafhanklike navorsers geskei is van die onderrig en die praktiese toepassing van kennis.

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This article has a simple message. It is that business schools cannot train people to become effective managers unless both student and staff are engaged in collaborative research of one kind or another. By this I mean that students at business schools need to be actively involved in research if they are to be 'good' managers later on, and that staff at such schools will only be 'good' teachers if they establish partnerships with students in doing research.

Before going on to justify these assertions it is necessary to confront a basic criticism frequently levelled at management research, especially by natural scientists; namely that such research is impossible since it does not, and cannot, produce universally valid generalizations from empirical evidence. This is a mistaken notion, in my view, resting, as it does, on a very narrow conception of what constitutes research. In terms of this conception, it is only possible to do research in the natural sciences, for it is only in such subjects as physics, biology, geology and chemistry that it is possible to derive both the necessary and sufficient conditions for the occurrence of certain events, something which has to be done if we are to have valid generalizations. However, as has increasingly been shown by the so-called human 'sciences' like economics, history and psychology, research in these disciplines is not only possible, in the sense that practitioners in those disciplines carry on and practice what they call research, but also in the important sense that such activity has been shown to illuminate our understanding of what it is that is researched.

Even though research in these subjects at best provides only a few of the necessary conditions for the occurrence of specific events or situations, such information is better than nothing. Because their research, even in the eyes of hostile critics, at least provides us with some of the necessary conditions, economists, historians and psychologists do help us to appreciate more fully than otherwise would be the case how and why economic, historical, and psychological events or situations occur as they do. It is in this respect, of improving our understanding, of helping us to make more sense of things, of reducing our puzzlement, that someone who is familiar with the research findings of those disciplines enjoys an advantage over the untrained layman. And this is true even though he may not be able to make much better predictions about *particular* events or situations than the untrained layman.

For instance, the historian does not claim to be able to predict what world events are going to happen, but the experienced and trained historian, because of his knowledge of historical research, is able to diagnose and appraise a particular situation more quickly and profoundly than the layman. In addition, research in economics is possible in that it has shown itself to be capable of yielding certain regularities which hold within definable limits, although we can never predict with certainty on economic issues, especially in the long run. Finally, psychological research has produced a rich and varied array of generalizations which help a student in understanding himself and others better than the layman. However, because this research does no more than specify a few conditions that are necessary for certain events or situations to take place, specific predictions based on psychological research are not invariably better than those based on common sense. In a similar fashion, although it does not provide us with universally valid generalizations nor certain predictions, management research undoubtedly leads to a greater understanding on the part of students of the phenomena it investigates.

That the sort of research done in business schools improves our appreciation of the subtleties and complexities of managerial life, while still falling far short of providing us with valid generalizations or certain predictions, is an important point, that needs to be illustrated with a few examples, drawn in this case from my own speciality, organizational behaviour. The lines of research I shall describe, in my view, make clear that such research does illuminate our understanding, if only in the limited sense of indicating the conditions under which certain kinds of effects or relationships hold and do not hold. Besides indicating that management research is not only possible but also contributes to knowledge, those examples are important because they illustrate the shift that has taken place in management education over the past decade, from simplistic generalizations to 'made to measure' rules and strategies.

The first line of research is concerned with the effect of different styles of supervision on employee satisfaction. The earliest studies that dealt with this issue found that a democratic style of leadership results in better performance than an autocratic style[1] However, the next series showed that which kind of leadership is more effective, depends largely on the task situation. For example, if the task demands are either very unstructured or very structured, then a leader with a fairly autocratic style tends to be more effective, but if the task demands are only moderately structured then a fairly democratic style tends to be better.[2]

Finally, a third series of studies has shown that the impact of the task situation on the relative effectiveness of different leadership styles *itself* depends on the kind of relationship between the leader and his subordinates. For instance, it has been found that even when the task is highly structured, an autocratic style will not have a more favourable effect on performance than a democratic style, if the prior relation between the leader and his followers is poor; but when the task is highly unstructured, an autocratic style is more effective than a democratic style, largely irrespective of whether this relationship is good or poor.[3,4]

The second line of research that I shall use to illustrate the same trend deals with the effects of organizational structure on employee morale and productivity. The first studies dealing with the effects of different structures after criticism of specialization had become widespread, found that 'organic' organizations, those with loose controls and a large amount of employee participation, tend to have more satisfied employees than 'mechanistic' organizations, with tight controls and centralized authority.[5,6]

However, more recent studies showed that which kind of structure is 'better' depends largely on the kinds of jobs performed by most members in the organization. For example, if the jobs in organic organizations are simple and routine, employees tend to be less satisfied than do those in mechanistic organizations, provided the jobs in the latter are fairly complex and varied.[7] Still more recently studies have found that the effect of structure on employee satisfaction depends on the complex interaction between the kinds of employees, the kinds of structure, and the kinds of jobs. For example, mechanistic organizations with simple routine jobs tend to have more satisfied employees than organic organizations with complex, varied jobs, but only if the employees in the former organizations have markedly weaker growth and independence needs than those in the latter. In addition, among mechanistic organizations whose employees have weak growth and independence needs, satisfaction tends to be greater if the jobs are simple and routine, rather than complex and varied; but among organic organizations whose employees have strong growth and independence needs, satisfaction tends to be greater if the jobs are complex and varied, rather than the reverse.[8,9]

Other examples could be quoted, to illustrate the general point, that the trend in management research is away from simple generalizations erected on slender foundations to a detailed specification of the precise conditions necessary for certain effects to occur, or particular relations to hold; eg. Woodward's studies, which indicate that the classical theorist's 'laws' about the optimum span of control or division of responsibility are confined to specific forms of production technology and not to others; Lupton and Gowler's[10] research into the design of payment systems, which is directed at devising ways of assessing different situations, which are appropriate for different systems of payment; and the work of people like Mumford[11], Locke[12] and Orpen[9] on job satisfaction, which concentrates on the *fit* between organizational requirements and worker aspirations, both of which need to be accurately measured in each case.

The shift in the direction of research that is indicated by those examples has important implications for the teaching of management. For one thing, the fact that the kind of management technique or strategy that will be most 'effective' under one set of circumstances will not be most 'effective' under another, means that teachers cannot rely on a single set of laws and principles in their instruction, whether they be devised by so-called classical theorists or behavioural scientists. On the contrary, they have to 'teach' students how to interpret and categorize the different *situations* that they may encounter, in order to know which of the variety of techniques or strategies

to apply. For another thing, the fact that each of the students is going back to practice management in a situation that is unique or at least highly individualistic, means that it is a waste of time in many ways for teachers to try to provide them with generalizations from other situations (those that have been researched). For maximal effectiveness, teachers should thus be less concerned with teaching students generalizations, than with providing them with the skills to examine their own situations. In practice, the effect of these implications is to distinguish or set apart the 'teaching' of management from the so-called classical view of how subjects should be taught, and one which still constitutes the accepted norm at most universities.

How management should be taught

A good way of highlighting how I feel management should be taught is to contrast the view which is emerging from the discussion so far, with the 'classical' view of how subjects should be taught. According to this latter view, there exists a body of knowledge known to the teacher and not to the student, and it is the task of the teacher (in the simplest version) merely to transfer this body of knowledge from himself to the mind of the student. Of course, the lecturer may select and summarize material and may adapt and adjust it, in accordance with the needs of the student. However, by and large, the student who is taught along the lines advocated by the classical view, plays a passive role, with the teacher determining what is taught and the movement of knowledge being in one direction only — from teacher *to* student. In terms of this conception of teaching, research is important in order to extend the body of knowledge, but can, and indeed should, be carried out quite independently of the teaching process. According to this view of the relation between teaching and research, it is an advantage that there is this sort of separation between teaching and research. The researcher is a specialist who should devote himself entirely to enlarging our body of knowledge; likewise, the teacher is an expert whose energy should be devoted to helping students learn what the researchers have found out about the subject in question.

Underlying this classical view of teaching are a number of assumptions which need to be made explicit. Of those assumptions the following are most important for our present purposes; that education is primarily a question of knowledge transfer; that there exists an established body of knowledge appropriate to the educational needs of an identifiable body of persons; that the teacher is the best person to transmit this knowledge, because of his close contact with this body of persons and his knowledge of their educational needs; that this method of teaching (by injection) can sustain the necessary level of motivation on the part of the student; and finally that the student, having acquired this knowledge, will be able to relate and apply it successfully to any situations he may subsequently encounter.

The trouble with each of those assumptions is that they are of questionable validity when it comes to the teaching of management. And because of this, the 'classical view' represents the wrong way to go about teaching such a subject. To take each in turn.

At the most general level, teachers of management are *not* simply concerned with transferring a certain body of knowledge from themselves to their students. The reason for this is that effective management requires a lot more than just the possession of certain information, no matter how coherent or valid it may be. For one thing, managers need to be regarded by their subordinates as leaders, persons whom they are prepared to follow. For this to occur, they need to possess certain interpersonal skills and traits, that may have little or nothing to do with knowledge as such, even if it is relevant to the problem at hand.[13, 14, 15] For another, managers need to have the sensitivity and skill to be able to diagnose situations and the people involved both quickly and accurately. These are capacities that cannot be 'taught' to persons by simply 'passing on' relevant knowledge to them, as indicated by the fact that many persons who have been formally taught what passes as 'knowledge' in this area perform less adequately than their counterparts who have not received this kind of training, principally because in these cases they typically have had less experience than the latter in the practical business of carefully judging and appraising others in a variety of situations.[16, 17, 18]

That this has been found to be the case in no way contradicts the usefulness of the information about management that has been 'uncovered' by researchers. All it does is draw attention to the limitations of this information; to the fact that possession of this information constitutes a starting point, but is insufficient by itself. As a number of writers on this issue have argued most persuasively[19, 20], the difficult task to the student is not to comprehend this information, but to *apply* it successfully in the variety of real-life situations he encounters. By their very nature, the subjects that form the core of what is taught at business schools abstract from individual cases and necessarily deal with just a few of the many variables that constitute a particular set of cases. The manager must not only face situations that are unique and highly complex, but also deal with them successfully. Trying to grapple with such situations armed merely with knowledge of the subjects formally taught at the business school is analogous to a cricketer going in to bat having been taught physiology and ballistics, but without any coaching or practice.

Moreover, that there even exists a well-established body of knowledge that is appropriate to the needs of management is not beyond dispute. For instance, there are some critics, mainly philosophers, who argue that judged by the criteria adopted in the natural sciences, what passes as 'knowledge' in management studies is no such thing at all. Their argument is usually based on the claim that the research which is supposed to 'produce' this so-called knowledge is deficient on two counts. First, it is inevitably the sort of research whose findings depend as much on the investigator (and his values) as on what is being researched. Second, there are very few, if any instances of research findings in this area being replicable, with it being the exception rather than the rule for identical studies to come up with similar findings. Those same critics also argue that, even in the few cases where established knowledge does exist, it is inappropriate to the needs of students. Their claim is that the generalizations taught to students in subjects like

marketing, economics, business policy, and organizational behaviour are useless, because they need to be revised to such an extent by students concerned to apply them in concrete situations. As indicated earlier, my position is that both those critiques represent oversimplifications of the actual state of affairs.

As regards the first claim, that there is nothing that can be called a body of knowledge in management, this is based on a very narrow and unacceptable view of what constitutes knowledge. As shown earlier, it is illegitimate to claim that knowledge presupposes universally valid generalizations. In this respect, I was at pains to point out that merely knowing a few necessary conditions for the occurrence of certain events and just being aware of a few limiting conditions, improves our understanding of the human aspects of management.

As regards the second claim, that the generalizations are useless because they need to be extensively revised when it comes to applying them, my view is that this represents too extreme a position. As suggested earlier, the generalizations may be limited because they do not cover all situations and do not provide necessary and sufficient conditions for the occurrence of any event, but they certainly do illuminate our understanding of the phenomenon in question, and in this respect are far from useless in many ways. However, for these generalizations to be really useful to students in the *practice* of management, they need to be sensibly and concisely applied — with the appropriate caution — to the variety of particular situations in which the student may subsequently find himself. To do this effectively, the student must have developed expertise in diagnosis and in application — neither of which can be taught through formal instruction of the 'teaching by injection' kind. As will be developed in more detail later, what is therefore required is an *integration* between formal teaching, in which students learn the relevant body of knowledge, and practical application — in which they practice using (and modifying) this knowledge in a variety of situations, so as to advance their understanding and so hopefully improve their performance.

While the teacher may be the best person to 'teach' students the relevant body of knowledge, perhaps through formal lectures and teach-led discussion groups, the available evidence suggests that what is required for effective diagnosis and successful application can only be learnt through 'personal experience' in which the student actually practices the various skills and techniques that are required.[21, 22] It is *within* this context that I see a role, albeit only a partial or limited one, for teaching-by-injection in management education. A role in which the teacher lays foundations, informs students of what is and is not available and, if anything, errs on the side of teaching too little rather than too much, so as to leave space for developing skills of application.

As a final point, it is fallacious to assume that strict adherence to the principles of teaching-by-injection can arouse and sustain a high level of motivation on the part of students. This is because the essentially one-way (from teacher to student) and passive (on the part of the student) communication that takes place under this form of teaching, has been shown to be incapable of generating much in the way of lively curiosity or intellectual excitement among students.[23, 24] Moreover, the fact that communication is one-way and the recipient basically passive, tends to breed an attitude of easy-going acceptance, that is inimical to the development of really effective diagnostic and application skills.[25, 26] Without curiosity and excitement on the part of the student, his motivation to learn and to apply what is learnt typically remains at a low level.[27, 28] In order to reduce the chance of this happening, the teacher must *not* rely excessively on either the formal lecture or teacher-led discussions, since both these methods involve a lot of one-way communication and encourage students to be passive recipients instead of active participants in the learning process.[29, 30]

How to establish integration between formal learning and practical application

Having established that what is needed is an *integration* of formal learning and practical application, the next question to consider is how this is best accomplished.

According to old stagers in business, it must be done through sheer experience on the job. According to the Harvard Business School, it is through concentrated experience, in the shape of case studies. But both these 'extreme remedies' have their drawbacks. One problem with the first method is that it is very expensive. Another is that it leads to generalizations which lack the sort of qualifications that are added by academic research, and hence are a recipe for disaster if applied in a context different from the precise one in which they are alone valid. On the other hand, the method relied upon by the Harvard Business School is wasteful of the relevant knowledge that *is* available. In addition, it does not encourage students to 'pull together' what they learn from the different cases into a coherent whole that will illuminate understanding. Instead, it typically leaves them with an assortment of 'intuitions' for different situations, none of which may correspond with the actual situation they face.

To avoid these errors what is required is a series of courses which blend formal instruction with exposure to real, or realistically-simulated, management situations, and which attempt to exploit the interrelationships between the two sorts of educational experiences. To refer back to what was said at the outset of this paper, this is a research situation or a very close analogue of one. For surely the essence of research is a confrontation between theory and reality, the outcome of which one does not know in advance. It is only if students of business are given experience in doing research of this sort, of testing the generalizations they have been taught against the facts of the case, and then revising the former in the light of such facts, that they will develop, in my view, into really effective managers. By the same token, it is only if teachers assist or help students in this process, of checking out the generalizations, that they can develop into really effective teachers. This process of collaboration-in-research should prevent teachers from doing research that involves the development of 'pure' theories of little or no practical relevance. At the same time, it should encourage students to do research that involves more than merely collecting 'crude' facts in the fashion of a census-taker.

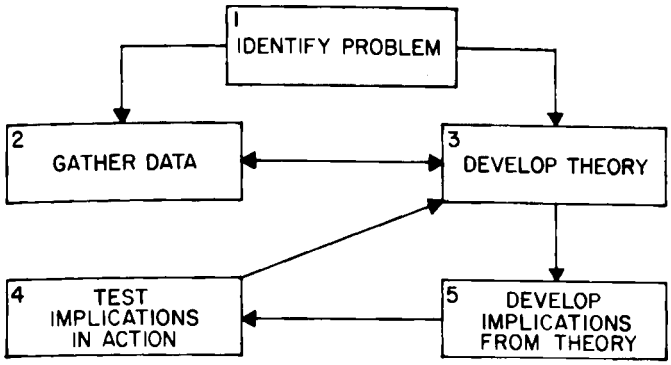

Fig. 1 Theory and practice in management research

What I am trying to get across is illustrated in Fig. 1 which highlights the interaction between theory (teaching) and practice (research).

As can be seen from this figure, the process of management research starts with the identification of a problem, whether it stems from a practical difficulty faced by a manager or an academic difficulty faced by a teacher (1). The identification of a problem of either kind in a subject like management leads to two activities; data collection (2) and the development of theory (3). To start on the road towards resolving the problem, it is necessary to find out more about different aspects of it (collect data) or do some thinking about it in general terms (develop theory). As indicated by the double-headed arrow between (2) and (3), those processes are complementary and interactive. In this regard, I feel it is wrong to see the framing of hypotheses preceding and thus dominating the collection of data against which to test them. Conversely, I feel it is wrong to regard the collection of data unguided by theory as serving any point either. Neither one activity should dominate the other, since the management researcher needs not only to immerse himself completely in the particular situation in order to frame his hypotheses properly, but also to modify his hypotheses in the light of what he finds there. In addition to those twin processes there is another further one, that of developing normative implications from the theory, and then testing these in action. This latter process, indicated by boxes 4 and 5 in the diagram, is essential since, firstly, it is only in terms of its implications for management practice that the value of a theory can be fully tested, and, secondly, as indicated by the arrow from box 4 to box 3, in management a theory, even when tested against data, cannot be regarded as definite until it has met the further test of application.

There are a number of implications which this simplified picture of management research has for the training of managers, but two stand out as potentially more important than the rest. First, since managers have to gather and interpret facts, develop understandings, test their presuppositions, and work out their implications for future action, future managers should serve an apprenticeship in management *research* during their training period (at a business school). In fact, in the light of what has been said before, a strong case can be made for students spending as much time *doing* research of this kind, as in being served with a diet of other people's generalizations. Second, there should be a high degree of integration between teaching (theory) and research (practice) in a business school, with teachers and students ideally continuously involved in collaborative research of one sort or another. There are a number of ways in which this integration can be fostered. For instance:

- With *course members who have management experience*, most classroom encounters have strong affinities with a research situation, as a result of which the member will inevitably be *'testing'* what the teacher has to say against his own experiences. The greater the freedom of course members to 'come back' with questions and comments, even if they are essentially anecdotal, the more likely it is that the teacher's generalizations will be modified and clarified. Hence the importance of having some students with managerial experience in courses and allowing a 'give' and 'take' session in which the generalizations (from a lecture) are applied to cases known to course members.
- *Case discussions* represent a quick and useful way of testing hypotheses against one another and against factual evidence, even if the case itself is an abbreviated summary of what actually happened in real-life. For the maximum benefit to be derived from cases, it is often advisable for the leader to supply only a limited amount of guidance, in the hope that the participants will develop their own approach from examining the case, instead of getting them to apply a particular approach to a specific case. If this is what is done, then we have a learning situation in which the *integration of teaching and research* is so complete that it is impossible to separate the two.
- A much more direct way of testing and modifying generalizations — the essence of research — is for students to do projects in on-going business situations. The idea is for the students to develop and refine their diagnostic and application skills, through examining and refining specific theories in the course of trying to solve the problems that define the project on which they are engaged.
- Course members can themselves constitute an *easily-accessible supply of material* for management research. Their attitudes and behaviours in different situations are a legitimate source of data against which to test generalizations. In addition, they can provide a fertile field for the development of tentative hypotheses on the part of the teacher. To make full use of this potentially rich source of data, teachers should ask course members, especially if they are experienced managers, to explain and comment on their 'answers' to any questionnaire they may be asked to complete, or their 'responses' to any experimental situation in which they may be required to serve as subjects.
- Besides case studies, there are an increasingly wide variety of *simulations* that can be used for teaching-research purposes. Examples of such simulations are business games, role-playing, in-baskets, assessment centres and experiential exercises. The essence of simulations is that they reproduce the major elements of actual business situations in an abbreviated form.

From our present perspective, the importance of simulators is that they require students to 'go through' the same processes of *research* as do managers in the course of their daily life. Specifically, they necessitate the development of models that can be used for prediction, and the modification of those models in the light of reality. For simulators to be really useful, the participants need to bring the models they carry within themselves fully into the light of day, and to show precisely how the various models compare to each other in terms of their consistency, simplicity, and correspondence with the facts. It is the task of teachers to ensure that these elements — the essence of research — are made fully explicit, rather than allowed to remain hidden from view, as is often the case.

- It is a *mistake* for members of business schools to think that *research and teaching are only done at academic institutions*. Besides the fact that managers necessarily practice research in the course of dealing with their practical problems — diagnosing situations, applying generalizations, and then modifying them depending on their appropriateness to the situation — work organizations have also long had their own departments or branches responsible for either conducting management-relevant research in a variety of areas, or for training members to acquire a multitude of job-related skills, capacities and attitudes. In this way they frequently can make a significant contribution to the quality of research and teaching done at business schools, just as the business school can improve what is done within work organizations.

To ensure this kind of fruitful collaboration, the people in these departments and branches of work organizations should enjoy close relations with members of the business school who in turn should be active within the work organization itself, to the mutual benefit of both parties. As a consequence of this kind of collaboration the distinctions between research and teaching, and between learning and action, are likely to become blurred — a result to be welcomed in terms of the argument developed in this paper.

The benefits to be derived from this sort of relationship become clearly evident if we consider what is likely to take place in a particular instance. For example, the advice given to management by business school teachers is based partly on research conducted elsewhere, but also partly on research that has been done within the firm itself. This advice is reflected in the teaching that occurs at the business school, as well as the instruction given to employees in the firm. Specifically, the quality of the teaching done at the business school is improved because the teachers have been able to see how their advice has worked within the firm, which has improved their understanding of what they are teaching. Moreover, the advice given to the managers in the firm by members of the business school improves the diagnostic and application skills of the managers, with a consequent improvement in their performance.

Conclusion

We have now come full circle: On the basis of the argument that has been developed, it should now be clear why the job of the 'teacher' at a business school is to facilitate, guide and monitor the process whereby the student learns to interrogate reality and that this is essentially to perform a *research* function. We have also seen that it is a mistake to think in simple terms of the relations between research, education, and action. The classical view, that research determines what is taught, which then is put into practice, is far too simple. Especially in the case of management, there are other relations that are of equal importance; *viz.* people learning through the action in which they are engaged, the process of learning itself generating research, and the researcher himself contributing to the action. It is because of the importance of these relations that good teaching is in effect a partnership in research.

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