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ABSTRACT

This paper reviews the book "Problem-Based Methodology," by Viviane Robinson. Consisting of 12 chapters divided into 4 parts, the book's general argument is that educational research must be grounded in problem-based methodology (PBM) if it is to contribute to the improvement of teaching and administrative practice. The reviewer first addresses the following questions: What is problem-based methodology? What are its main strengths and limitations? and Do the arguments in its favor withstand critical scrutiny? Then, it is pointed out that Robinson offers a set of criteria to assist in theory appraisal and the improvement of practice: exploratory accuracy, effectiveness, coherence, and improvability. The PBM approach requires theoretical pluralism, in which the theories or actions relevant to the problem situations are investigated, evaluated, and, if necessary, altered. Robinson argues that to understand an educational problem is to understand the theories of actions of relevant agents and the factors that sustain those theories. The book is deemed to be refreshingly innovative in its novel approach to education research. By requiring theoretical pluralism, practitioner and researcher approaches to educational problem solving are collaboratively addressed within a context of critical dialogue. (LMI)

Problem-Based Methodology : Research for the Improvement of Practice.

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Problem-Based Methodology: Research for Improvement of Practice.

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Viviane Robinson's book Problem - Based Methodology is sub-titled 'Research for the Improvement of Practice'. Her general argument is this: for educational research to be able to contribute to the improvement of teaching and administrative practice, it must be grounded in what she calls 'Problem-Based Methodology' (or PBM for short). The bulk of her book is devoted to setting out in some detail what PBM is, establishing its viability and justification, and assessing its practical usefulness.

The book consists of 12 chapters divided into 4 parts. In part ne, on justifying and explaining problem-based methodology, the need for PBM is considered, concerns about problems and practitioners are examined, and a defence of the methodology is mounted. The second section explores the central issues arising out of two case studies where PBM was employed. One is a professional development programme, the other is a participative management strategy. Robinson reflects on the problem analysis in each case and on her interventions to improve practice. The third grouping of chapters centres on a comparison of PBM with empiricist, interpretive and critical research in terms of problem resolution. Lastly, in the final part, some conclusions are reached about the obstacles and opportunities for PBM. So much, then, for the structure of the book. What of its content, and in particular, its main argument?

Of the case studies themselves, I have little to say, leaving it to others with a greater empirical understanding of professional development and participative management to pass comment. On the face of it, they appear to be well reported. But I do have one objection, and it is this. While the identities of the two secondary schools are protected by pseudo-names (Western College, Northern Grammar) the two principals are referred to by their actual first names (Carol, Tony) even if not by their surnames, but given the detailed biographical information provided, it is relatively easy to figure out who they are. After all, there are not many Tony's who have been national president of the PPTA. And on P74 Carol's surname

is actually referenced! On the face of it, it seems a somewhat unusual strategy to preserve the anonymity of the schools but at the same time provide sufficient detail to permit identification of their principals without difficulty. In the interests of sparing them any embarrassment they might experience over having some of their personal qualities made public, it might have been prudent to have with-held such information. This particular issue is one of ethical judgement and no doubt will give rise to some difference of opinion. This aside, the reported case studies are interesting in their own right as contrasting instances of administrative style.

To turn, now, to matters of substance. First, what is problem-based methodology? Second, what are its main strengths and limitations? Third, do the arguments in its favour stand up to critical scrutiny?

What is problem-based methodology? An introductory grasp of its central features can be obtained from its description in the Preface :

> ... educational researchers who want to have an impact on practice should adopt a problem-based methodology (PBM), in which the theories or action relevant to the problem situations are investigated, evaluated, and, if necessary, altered. A theory of action is a theory we attribute to ourselves or others that purports to explain or predict, on the basis of relevant values, beliefs and motives why people act as they do in a given situation. To understand an educational problem, therefore, is to understand the theories of actions of relevant agents and the factors that sustain those theories. To resolve an educational problem is to change those theories of action to produce consequences that are no longer judged to be problematic. Researchers must conduct these processes of problem understanding and resolution as a critical dialogue with practitioners, so that competing theories of the problem can be adjudicated and new theories of action learned during the course of the research itself. (pvii).

The author then devotes much of her book to an elaboration and defence of this argument;

in particular she sets out a family of inter-related theories - a theory of problems of practice, a theory of how these problems are solved by practitioners by way of a theory of action, a theory of how solutions to problems may themselves be problematic, and a theory of criteria according to which the adequacy of problem solutions are judged.

Robinson begins by adopting Carr and Kemmis's (1986, 81) definition of educational practice as 'action informed by beliefs about how to achieve educationally important purposes in particular circumstances.' (p5) The problem with this definition is that since the expression 'educationally important purposes' begs the question of what makes a purpose 'educational' then we are left none the wiser about what constitutes educational practice. However, leaving this vexing issue to one side, Robinson is surely correct to claim that the contribution of research is properly directed not merely to changing educational practice, but of actually improving it. That they are not the same, even if mistakenly taken to be so by some, is evidenced by the fact that on occasions change can have more harmful consequences than the initial conditions, whilst the notion of improvement implies something has happened for the better. And what is the criterion for judging that changes lead to improvement? Robinson adopts a pragmatist view: following Walker (1987, 4-5) 'practice is said to be improved when problems that arise in the pursuit of our goals or the satisfaction of our needs are resolved in ways that enhance our ability to resolve other problems that we experience...In short, a solution to any one problem must cohere with solutions to our whole problem set.' (p 7-8). The demand for coherence is a reasonable requirement for problem resolution, but note that practice is limited to empirical problems, or those of an instrumental kind which arise out of our seeking to achieve particular ends. What is missing is educational practice concerned with problems arising out of the determination of the educational goals/needs themselves. This separation of means/ends is paradoxical given the pragmatist project or maintaining their epistemic unity.

Robinson provides an elaboration of what a problem is. Educational problems are to be identified by the discrepancy between actual and desired states of affairs where the desired state serves as the standard against which a situation is described as problematic, and as having improved (p8). Solutions to resolving the problem, or closing the gap between actual and desired, give rise to interesting questions. As Robinson acknowledges, different groups

may employ different solution criteria and so how are these competing solutions to be adjudicated? One solution is to take the actual to be the ideal, so dissolving the problem. But all too often other interested parties will, while agreeing with the actual, nonetheless be in dispute over the desired. How then to resolve the tension? If these connecting problem formulations, constituted by a conception of a desired end state and a causally efficient means of achieving the end state, are thought of as rival theories, then two types of theory emerge. There are those theories of action which practitioners employ to understand and resolve their practical problems; and there are those explanatory theories which researchers generate to account for their observations of practice. In a perfect world there would be no such distinction, but given the messy and unpredictable nature of the social world there is a bifurcation of theory. All too often researchers apply their explanatory theories at the expense of practitioner's theories of actions, a move which Robinson rightly condemns. If a problem is to be rationally resolved then all of the theories relevant to its resolution must be placed on an epistemic par; all warrant serious attention and are not to be eliminated without due process. But not all of them will survive the rigours of epistemic adjudication; they will fall by the way-side, leaving only a few, or perhaps even one, solution as the preferred course of action to adopt. Two reasons for the inclusion of practitioner theories of action in the resolution of educational problems are evident from Robinson's text : the first is that there is there is no a priori: means of eliminating them in advance of seeking a problem solution, and second, causal mechanisms play a crucial role in problem resolutions - the theories of action practitioners have about practice have a causal role to play in the practice itself and in the generation of problem situations. In the explanation and resolution of educational problems it would be a foolish researcher indeed who discounted the causal explanations embedded in the practitioner's accounts of their own practice. Hence, in the resolution of educational problems the maximization of theoretical pluralism is to be preferred.

Robinson urges practitioners and researchers to engage in critical dialogue in order to seek a resolution to problems of practice. She rightly notes that where a problem solution coheres with the core values and beliefs of practitioners then it is highly likely that practitioners will be reasonably willing to adopt the strategies required to solve the problem. And where there is conflict the likely outcome is predictably resistance. Coherence leads to implementation but also to minimal change. Dissonance, while raising the possibility of significant

improvement, is also a barrier to action.

Underpinning this predicament are two somewhat opposing forces at work: one psycho-political, the other epistemological. Robinson clearly identifies a range of psychological and political barriers to a successful engagement in 'critical dialogue' between researchers and practitioners. There are real dangers for practitioners in opening up their professional work to researcher scrutiny especially when the goal is intervention to bring about improvement. The notion of improvement rests on acknowledging a gap between actual and ideal practice, entails that the actual is in some way deficient, and implies that the practitioner's conduct is in some way inadequate. Since it is the practitioner's behaviour which is under examination and deemed to be in need of improvement, then it is the practitioner rather than the researcher who faces the greater threats to personal integrity, professional respect and community accountability. Not surprisingly, as the case studies reveal, practitioners are wary of implementing major structural change to their schools or to undergo personality transformations in themselves when the risks are high even if these hold out the prospect of significant improvements in learning, teaching and administration. In the interests of survival, threat avoidance becomes, for practitioners, the most appropriate course of action in the face of researcher intervention even if conducted within the spirit of critical dialogue.

If the psycho-social pulls one way, the epistemological tends to tug in a slightly different direction. The appraisal of competing solutions to educational problems should not be left to non-rational means. Rather, Robinson offers a set of criteria to assist in theory appraisal and the improvement of practice. Briefly put, they are these: (1) explanatory accuracy - one theory is more adequate than another if it can provide a more accurate causal account of the phenomena it seeks to explain; (2) effectiveness - a theory of action is effective if it produces the intended consequences without violating important constraints; (3) coherence - we should prefer one theory to another if it squares better with what we already have reason to believe, beliefs which have already passed a relevant test of epistemic virtue; (4) improvability - there is merit for the growth of knowledge and for problem-solving, in the development of theories which are open rather that closed to the possibility of error and revision. The criteria of improvability assess this quality. These criteria are in line with those employed in the philosophy of science to govern the appraisal of rival scientific theories - to these four we

might add some others - generality, simplicity, fecundity, falsifiability and the like. Their application to problem-solving in educational settings is likely to be little different from their use in other theoretical contexts.

Robinson appeals to her 4 criteria to demonstrate that, unlike her problem-based methodology, approaches to inquiry located within empiricist, interpretivist and critical paradigms all, to varying degrees, fail to meet the requirements for improving practice. While accepting causal explanation, the basic tenets of empiricism are nonetheless rejected; interpretivism, while making a major contribution with theories of action is still flawed by its neglect of structural analyses; critical inquiry provides critique but offers little in the way of social action to advance improvement. Although closest to critical research, PBM nonetheless differs significantly from it. PBM is not a new research paradigsm nor a version of an existing one, but given the connections the author draws between PBM and the naturalism of Evers, Lakomski and Walker (1986, 1988, 1991) it seems plausible to conclude that a naturalistic epistemology would fit most comfortably with PBM.

Finally, to whom is this book addressed? For practitioners, it offers a fascinating insight into the processes of a research methodology designed to solve educational problems and promote improvement of practice. The case studies examine in detail the issues which trouble practitioners most. For researchers, a systematic account of inquiry is provided which is coherent, comprehensive and rigorous, while at the same time displaying sensitivity and an awareness of limitations. For those charged with the responsibility of training educational researchers, there is a clear message:

> If we are to increase the pool of researchers who can use PBM, research training will have to be more responsive to its subject matter, ie to the nature of educational problems, and less responsive to the disciplinary and paradigmatic boundaries that currently govern much research training. Normative theorising is essential to researchers who purport to help those whose practice is saturated with normative questions; intervention theory and skills are essential to those who want to translate their emancipatory and educative espousals into educative practice in politically constrained and complex settings. The former is usually taught to those

> who eschew empirical research training, the latter to those who go down a consulting rather than a research path. Those researchers who want to make a difference cannot afford these distinctions; the problems they want to address require openness to, if not expertise in, all of them (p261).

To conclude. This is a refreshingly innovative book on educational research which draws off a rich philosophical tapestry to develop a novel approach to educational research. By requiring theoretical pluralism, practitioner and researcher solutions to educational solutions are collaboratively addressed within a context of critical dialogue. Beyond this, the author has put her method to the test; the two case studies reveal the very real strengths of PBM while at the same time acknowledging in a painfully honest way some of the challenges it faces. It deserves to be read by all practitioners, researchers and teachers of research who have a vested interest in assisting practitioners solve their problems and improve their practice.

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