

Conference Paper

Opportunities and challenges in the development and implementation of a national research strategy in adult learning & work

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The Institute for Adult Learning (IAL) aims to contribute to the competitiveness of Singapore by developing an effective, innovative and responsive Continuing Education and Training (CET) sector that is able to meet the needs of industries and the workforce. It achieves this by raising capabilities, catalysing innovation, and leading research in workforce learning.

This conference paper was presented at the 7th International Conference on Researching Work and Learning, 4 to 7 December, Shanghai, China. It is also available on page 656 of the conference proceedings.

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Abstract

The confluence of increasing pressures on researchers to demonstrate the impact of their work with a growing interest in research informed practice and policy creates both opportunities and challenges for dialogue and partnership between researchers, policy makers and practitioners in adult, vocational and lifelong education and training. The Research Division of the Institute for Adult Learning in Singapore, part of the Singapore Workforce Development Agency, has attempted to grasp these opportunities, and address the challenges, through the development of a research strategy shaped by consultation with key stakeholders, from Workforce Skills Qualification (WSQ) course participants to senior policy makers. The implementation of this strategy has involved both the design of a programme of policy and practice relevant research and the development of a range of research capacity and capability development initiatives. In this paper we will explore the process of facilitating the creation of a research community in Continuing Education and Training (CET). In particular, we will examine the ways in which specific research studies in key areas of adult learning, skills utilisation and innovation in CET have acted both to inform practice and policy and act as a medium for research capability building. We will relate this work to the development of a framework for monitoring and evaluation of the impact of CET initiatives and, ultimately, investment in Singapore. From this we will explore the ways in which such a framework can assist in establishing coherence in and the credibility of a research and development programme that aims to maximise impact on practice. (Theme: Policy studies, work and learning).

Introduction

Researchers are increasingly being urged to demonstrate that the work that they do has 'impact'. Alongside this, there is growing pressure for policy makers and practitioners to show that initiatives are 'evidence-based' or 'evidence-informed'. Both these tendencies make sense in a time of economic stringency and uncertainty, in which public expenditure is under constant scrutiny. Whilst setting up a clear relationship between research and practice, in which each is expected to inform the other, would seem to be of benefit to all involved, it does raise a number of difficult issues, in particular about who sets the agenda for research and the process by which research outcomes might be brought to influence practice. As a publically funded research organisation with a close relationship with both policy makers and practitioners on the one hand and academic researchers on the other, the Research Division of the Institute for Adult Learning (IAL), Singapore, has attempted to develop a research strategy that directly addresses the question

of impact and the relationship between research, policy and practice. This paper considers some of the ways in which we have sought to achieve this, and to present examples of research we have conducted that exemplifies the approach we have taken. In doing this we will address both the practical and conceptual challenges and opportunities presented in developing and implementing a national research strategy in the area of continuing education and training (CET).

We should be clear from the outset that we are not presenting one particular piece of research in this paper, with its methods, findings and conclusions, but are outlining an over-riding strategy that provides a platform and context for research, and which gives meaning to and impetus for research and for innovation. We will, however, illustrate our argument by drawing on empirical studies carried out by researchers at the IAL. The issues raised throughout will be of importance to any researcher who aspires to influence policy or practice in adult and vocational education, and to research organisations operating in, or seeking to influence, the public sphere. There are a number of reflexive relationships here that we aim to unfurl as we proceed with our analysis. There are also some fundamental conceptual issues about what counts as evidence, and indeed what counts as knowledge, and who produces and reproduces knowledge, how the forms of institutionalisation of knowledge production are changing and how research communities are created and sustained, to which we will attend in the conclusion to this paper.

Background: CET research in Singapore

The CET Masterplan is a long-term strategic move that will support our economic growth and provide Singaporeans with the opportunities to equip themselves with new skills, stay employable and secure good jobs. This is a sound investment in our economic competitiveness and the future of our workers (Lee, 2008).

The CET Masterplan, which was announced in 2007 and serves as a comprehensive plan for workforce development in Singapore, has acted as a spur for investment in and development of the adult vocational education and training sector. Following its recommendations for a Centre of Adult Learning to be established in Singapore, the Institute for Adult Learning came into being in April 2008 as a part of the Singapore Workforce Development Agency (WDA). The mission of IAL is to 'champion excellence' in Continuing Education and Training (CET) through the professionalisation of the sector. It does this by providing training and development programmes for adult educators, through the establishment of a framework for the advancement of the profession of adult education and training, through curriculum development, and through research. For IAL and WDA, the development of research capability is a particular challenge, as research in the fields of adult learning and continuing education and training is relatively underdeveloped in Singapore. Until now, educational research has predominantly been focused on schooling, and there have been no established research institutions or university departments in Singapore focusing specifically on these areas, or on the broader field of lifelong learning (Brown & Tan, 2009).

To advance the research mission of the IAL, a three-year research strategy was devised. This sought to identify key areas for development and map out the specific topics that should be a priority in creating a programme of policy and practice relevant research. This strategy has subsequently informed the allocation of funds to research projects and to research capacity and capability building activities. The ultimate aim of this work is to build the capability for research-informed CET policy and practice in Singapore.

Method: development of a strategy

An underlying principle in the development of the research strategy for the IAL has been to engage with stakeholders and users from the very beginning, through a process of consultation and dialogue. This addresses the need, expressed clearly by Calhoun (2009), for social researchers to engage with users from the start of the research process rather than just at the end. Our approach was to arrange meetings with individuals and groups over a period of three months, periodically drawing together the ideas developed in these interactions and feeding them back either through formal meetings or informally in further discussions. The stakeholders with whom we held discussions ranged from participants in training programmes through to senior policy makers. They included representatives of industry bodies, labour and community organisations, training providers, corporate trainers, post-secondary education institutions and institutes of higher learning. This breadth of involvement enabled us to develop a strategy that covered a wide range of substantive areas for research and a diversity of approaches to research. In many cases participants had only a vague conception of educational and social research, or held a very narrow view, often associating research with purely quantitative data and statistical analysis. It was thus important to take time to map out different approaches to demonstrate that research could address a wide range of questions, and that the design of the research could take many forms and involve a diversity of people in the process. The meetings thus had an educative and awareness raising aspect, making the discussions a genuine exchange. Towards the end of the process, before producing the final document, we presented and discussed the proposals with an international expert group, further testing out the extent to which our local concerns connected with a broader international agenda and contemporary research interests.

The main strength of this approach was that it secured commitment from key agents and agencies in the development of continuing education and training in Singapore by ensuring that their particular concerns were addressed, whilst at the same time making each individual and group aware of the wider set of interests in the field of CET. Our approach diverged radically from the habitual approach in Singapore, which would characteristically begin with a review of what other countries do and then proceed to take the perceived best practice and refine this for the Singaporean context. Our approach, in contrast, has placed Singapore at the centre of the endeavor and ensures that the resulting strategy addresses current and rising concerns, and presents an approach that can be realised in prevailing conditions. At the same time, we are informed by initiatives in other countries and have placed a high value on

international partnerships in putting the strategy into action.

Our approach is also prospective in that actions can be put in place to create the conditions necessary to achieve the desired outcomes identified by the stakeholders. In the course of the consultations it became clear that the capacity and capability to conduct research was limited amongst the wider CET community. This made it necessary to place the development of research infrastructure and the building of research capability at the heart of the strategy (see Brown & Tan, 2011, for a more comprehensive account of the process, and details of the resulting strategy).

The over-riding aim of the research strategy is to provide a strong basis for research-informed policy and practice in CET. The infrastructure and research capability building work lays both the foundation for the production of CET relevant research in Singapore and for the engagement of users, who will include policy-makers and adult educators. One of the challenges here is not to draw too firm a line between users and researchers, who in practitioner research, for instance, will be one and the same person. At the same time, we have to establish and foster the specialised skills and knowledge required to conduct rigorous and credible research that meets international standards. As Pollard (2004) argues, the claim to authority rests both on the relevance and the quality of research, providing support for a strategy of involving users in all stages in the research process, 'from conceptualisation of key research issues onwards' (p. 17). This is particularly important for us in meeting another key challenge: to produce research and conceptual frameworks that maximise relevance to the Singapore context, in that they are not informed predominantly by research carried out in North America, Europe and Australasia and not exclusively 'western' in orientation. We can only achieve this through the establishment of programmes of high quality research in Singapore, the building of local research capability and sustained user engagement.

The substantive areas of research that were identified in dialogue with stakeholders covered the broad areas of adult learning, the nature of work and the measurement of the impact of CET, each broken down into specific topics and areas of concern. These areas of work have subsequently provided the focus for three IAL research centres: Centre for Research in Learning (CRIL), Centre for Skills, Performance and Productivity Research (CSPPR), and Centre for Evaluation and Innovation Research (CEIR). The research that we conduct is designed to address issues of direct relevance to the CET community, and to engage potential users of the research from the outset.

Outcomes: research with impact

The capability and capacity building work of the IAL takes a number of forms, each designed to build a community of CET researchers. These include the hosting of masters programmes and providing sponsorship for people to study for doctorates. Research carried out under supervision as part of these academic programmes feeds into our body of CET relevant research (and a number of our masters graduates and doctoral candidates are presenting their work at this conference). We also have schemes to provide support for

graduates who want to continue to produce CET related research. We provide workshops for practitioner researchers and integrate various forms of action and practitioner research into our research projects. We have a scheme for Visiting Fellows, Visiting Researchers and Postdoctoral Fellows to facilitate international collaborative research, and partnerships with local universities, CET Centres and Post-secondary Education Institutions designed to enlarge the pool of active researchers focusing on CET relevant issues. Our CET Innovation Fund provides grants to foster innovative teaching and learning, and requires that each project build in a strong evaluation and research programme. Alongside this we run seminars to disseminate our work and engage users, and have developed a publication strategy designed to reach a variety of academic, practitioner and policy-maker communities.

The range of ways in which a close relationship between research and practice has been developed can be illustrated by looking at some specific projects. The Centre of Research in Learning, for instance, has been working with practitioners to engage them in research to enhance professional learning in CET. One such project, *Reflexive Practitioner Research for Professional Learning in CET*, sought to investigate the beliefs adult educators teaching Workforce Skills Qualification (WSQ) courses have about learning and teaching and explore how these relate to their practice. This involved interviewing 23 adult educators and training managers and an online survey of approximately 600 WSQ adult educators. The design also engaged adult educators in conducting investigations into their own work and reflecting on the implications of the outcomes for their practice as educators. In these studies participants defined their own questions, within the scope of the project, and designed and conducted research with the support of the research team, who also provided workshops and online interaction. The research highlighted the tensions that exist around the professional development of a predominantly casual and freelance workforce, with a trade-off between development activities and paid training work. The study also demonstrated that, whilst reflection on practice was common, it rarely focused on fundamental issues such as beliefs about learning and teaching. The participants did, however, show an appetite for more demanding engagement with these questions, and practitioner research provided a vehicle for this and as a means for engaging with other practitioners. Here, evidence drawn from practitioner research is fed directly back into practice and further professional learning, and in the process, enlarges the community of CET researchers. Some of the other projects in this centre impact on practice in very different ways. For instance, a series of case studies of the way in which learning takes place through work has influenced both the form taken by training programmes and training practice in the organisations studied. Researchers in this centre are constantly seeking different ways to engage practitioners and policy makers in research and reflection in a way that constantly strengthens teaching and learning in CET.

In contrast to this necessarily small scale and practice-oriented research, the Centre for Skills, Performance and Productivity Research has conducted a survey of approximately 3,000 workers in Singapore to investigate skills utilisation in their jobs, how skills are distributed across industries and occupations, and how skills utilisation may be explained by other factors. Prior

to this *Skills Utilisation Survey* no such data on the use of skills in work was available in Singapore. The impact of the analysis of this data has largely been at a policy level, helping policy makers assess the appropriateness of the CET supply strategy, raising questions about the relevance of WSQ qualifications across sectors and deepening awareness of the extent of skills mismatches. Research now being carried out in this centre on productivity drivers in different sectors has taken a very different approach, developing a number of contrasting case studies in each sector. The very process of constructing these case studies engages employers in reflection on processes in the workplace; the analyses and sector reports extend the impact and influence of the research within and between sectors.

A major challenge facing Singapore is to assess the impact of the government's increasing investment in CET. The Centre for Evaluation and Innovation Research has taken up this challenge, working with other agencies to develop a framework for the monitoring and evaluation of CET initiatives. Through a process of engaging in dialogue with key stakeholders, against a background of a thorough review of national and international practice, we have proposed a framework for monitoring and evaluation that will enable the government to measure the outcomes of CET, learn from the implementation of CET initiatives and maximise the impact of future CET initiatives. This framework embeds thorough evaluation of processes and outcomes into CET initiatives, alongside the development of clearly articulated longitudinal studies of the trajectories of adults through their working lives. The impact of this work has been the initiation of a number of evaluation studies that are planned into interventions and initiatives from their inception, and the training of government officers in conducting and interpreting evaluation studies, once again combining the initiation of new studies with capability building. It has also prompted collaboration between government agencies in tracing the influence of education and training on occupational trajectories and performance in work. Other research projects in this centre have focused on trainers' careers, transitions between education and training and between occupations, and the evaluation of specific training programmes. In all cases, the outcomes have a direct impact on practice. For instance, biographical research into trainers' lives feeds directly into the scope and design of professional development programmes offered, as well as contributing more generally to our understanding of the dynamics of the training career.

Discussion and conclusion: towards evidence-informed policy and practice

From the above it is clear that, in striving to develop a strong base for evidence-informed policy and practice we face two major challenges that have both practical and conceptual dimensions. The first challenge relates to the *engagement of users and stakeholders*, and the relationship between research as an activity on the one hand and everyday and professional discourse and practice on the other. The second relates to *what we consider to count as evidence*. These two challenges are, of course, closely related. In concluding this paper, we will take each in turn and address firstly the nature of the issue and then consider how we have addressed this in practice.

Following this we will bring the two issues together and consider how this relates to our overall aspiration as a national research organisation to produce research that has maximum impact and lay firm foundations for evidence-informed policy and practice in CET.

We have chosen to strive for 'evidence-informed' or 'research-informed', rather than 'evidence-based', policy and practice. We are making this distinction in order to be quite clear that to develop policies and influence practice, something more than evidence from research alone is needed. There are, for instance, factors such as the explicit and tacit knowledge and judgement of practitioners to incorporate and consider (see Biesta, 2007). This distinction also acknowledges that prevailing conditions will shape practice, and that, whatever research and other forms of evidence might suggest, there are limits to what is possible, or desirable, in practice. Research can thus inform in a number of ways, for instance by providing insight, or analysis, or alternative ways of viewing a problem, or to test out a proposition or approach, but cannot, in our view, dictate what should be done. At the heart of this approach is the commitment to dialogue, and the productivity of bringing together, but not resolving into a single voice, different perspectives, which themselves may be associated with different interests and systems of meaning. This entails acknowledgement that the process of recontextualisation of discourses and practices (in the sense in which this term is used by Bernstein, 1990, 1996) potentially transforms meaning, as knowledge 'produced' in one domain (i.e. through the practices of social research) is 'reproduced' and 'consumed' in another (i.e. by practitioners and policy makers). In making this transition from one domain to another, 'knowledge' takes on new meanings and is judged by different criteria. Whilst this is not the place to become too wrapped up in the concerns of epistemology and the sociology of knowledge, it is important to acknowledge that the relationship between research and practice is complex, and that engaging with this complexity enriches the practical strategies and tactics developed. For us, the issues raised here confirm the need to engage stakeholders and users from the start, rather than just to produce research that is then repackaged for dissemination. This process of dissemination is, of course, a practical necessity, but alone cannot create and sustain the conditions in which research can productively inform practice (and vice versa, as it is equally important for practice to inform research). The establishment of a more symmetrical or balanced relationship based on dialogue also responds to some of the issues raised by critics of globalised 'evidence-based' education. Shahjahan (2011), for instance, argues that such approaches bring with them a set of colonial assumptions, evident in the production of standardised, all encompassing educational packages and the imposition of testing and measurement regimes which give priority to the exigencies of the imperial, and now neoliberal, economy. The approach we are taking, in contrast, creates the potential for the production of forms of knowledge and practice which, whilst not completely free of the imprint of colonial relations, do place priority on local relevance, the development of capability and the exercise of agency in setting and sustaining the research agenda.

These issues are inextricably tied up with the question of what counts as evidence. The 'gold standard' of randomised controlled trials, held in such

high regard in the field of medicine, has proved to be problematic in educational settings, where control of contexts is difficult and it is excessively challenging to establish experimental conditions. Even were this possible, such an approach would run counter to the relationship between research and practice outlined above. Our approach has been to take a broader view of the notion of 'evidence-informed'. There are three principal components in this approach.

One component is to *develop the capacity for practitioner research*, which addresses issues of direct interest and relevance to adult educators. This, by necessity, is small-scale, localised and predominantly qualitative research. By embedding opportunities for practitioner research within some of our projects we are able to both scaffold this work and start to develop a network for practitioner researchers to share their work. The principled reflection on practice and the rigorous design and conduct required provides one form of evidence, which has a direct relationship with practice. The relationship with a wider research programme means that practitioners are not, however, confined to just this one form of research. It is vital for us not to create too firm a distinction between researchers and practitioners (many of us are indeed both) whilst maintaining a clear sense of the distinctiveness of the activities, thus maintaining a productive dialogue.

The second form of evidence used to inform practice and policy is provided by the *implementation of the monitoring and evaluation framework* described in the previous section. The evaluation programme for each intervention or initiative must do more than tell us whether or not it was a success in relation to its desired outcomes (though this is clearly vital given the high levels of public expenditure). It must be both formative and summative. Evaluation studies thus have to be designed to maximise what can be learnt, for instance through exploration of the factors leading to success or otherwise of a programme. In developing the framework, we came to appreciate the need to plan interventions with a clear sense of the outcomes in mind, and to develop the capability amongst policy makers and practitioners to plan, interpret and use effective evaluation studies. This, again, requires early collaboration between researchers and practitioners, and the maintenance of dialogue throughout the process. Focused evaluation studies are, however, only part of the process of answering the question of the impact of investment in CET. This also requires a longitudinal study that traces individuals and groups through time and examines the impact of interventions and experiences on trajectories. This strand of the monitoring and evaluation work requires close and coordinated collaboration between agencies, providing data and analysis to inform policy and practice, and address, for instance, specific issues such as the lack of baseline data and of sufficiently complex data to be able to plausibly explore causal relationships.

An established part of the policy making process in Singapore is to scan and identify best practice in other countries, with the intention of 'localising' these practices in a manner that maintains confidence that tried and tested and 'best in class' approaches are being adopted (achieved through a process popularly referred to as 'tweaking'). Quah (1984) observes that one of the hallmarks of the ruling People's Action Party is its 'reliance on policy diffusion, that is, the

learning from the experiences of other countries in policy-making' (Quah, 1984, p. 123). Building on this tendency, our third form of evidence is the *systematic review of existing research, policy and practice* in addressing questions of contemporary relevance to CET in Singapore. Conventional literature reviews and scoping activities, we would argue, tend to address only part of the research and other literature, and often take the reported outcomes of research at face value. The process of systematic review, or *research synthesis*, aims to introduce greater transparency, rigor and consistency into this process. This involves a set of formal processes for 'bringing together different types of evidence so that we can be clear about what we know from research and how we know it' (Gough, 2004). Each review addresses a clearly defined question, and involves a thorough and comprehensive search for relevant research. Criteria are set for making judgements about the relevance and quality of the research. The methods used are designed to be transparent and are made explicit. Each review follows a standard set of stages, maximising accountability and the extent to which the process is replicable. This open and systematic approach also makes the reviews updateable at a later time. A prime attraction of this approach to the IAL is the requirement for user involvement, which ensures that the reports produced are relevant and useful to subsequent development of policy and practice. In this way, the systematic review process is consistent with the overall approach to evidence-informed practice taken by the IAL. As with the other approaches adopted, care has to be taken to ensure that the criteria used to ascertain the quality of research and its relevance to the question being posed are themselves open to scrutiny, and are not seen as importing what might be seen as culturally inappropriate values and assumptions. In our partnership with the EPPI Centre at the Institute of Education, University of London, we aim to develop and refine our approach to research synthesis to be consistent with and supportive of our overall research strategy.

To return to the issue of maximising impact of research on practice, it can be seen from the approach we are taking that a high priority is placed on dialogue and engagement throughout the research process, rather than on production and then dissemination of research. We have shown how our studies are having an impact on policy and practice and how the commitment to a rigorous, but flexible, monitoring and evaluation framework has the potential to provide a context for sustaining an evidence-informed approach. As Kusek & Rist (2004) have observed, political commitment to monitoring and evaluation is vital to achieve maximum value. We have also taken care to emphasise that we are adopting a broad view of what counts as evidence, and want to maintain an open and critical stance in developing a body of research and a community of researchers that spans a wide range of forms of research. As in any ecosystem, this diversity is necessary to ensure the dynamism and sustainability of research in the CET community. It has to have the capability to change and to innovate.

The dialogue has another dimension. As Fielding (2010) has pointed out, in any applied research setting it is important not only for researchers to understand the dynamics of the policy-making environment, but also to be aware that increasingly sophisticated policy-makers themselves will have a theory, tacit or explicit, of the world of social research. To enter productive

engagement we have both to understand this and create opportunities to illuminate and influence the theories held. The frequently voiced concern that research is ‘too theoretical’ (often associated with the need for researchers to make visible, for credibility in their own community, the conceptual basis for their research and analysis) can be addressed, but only if we, as researchers, understand how our practices are viewed and understood. This is not a case of turning everyone into researchers, or into policy makers or practitioners, but to provide a supplement to the perspectives of all agents, to enable and sustain productive engagement. In the end, this is a practical accomplishment, and increasingly necessary as the modes of production of knowledge change and institutional base for research shifts away from the university (Gibbons et al, 1994). This, again, highlights the centrality of the production and reproduction of a community of researchers as a key component in a national research strategy. To achieve this requires the creation of a strong programme of capacity and capability-building activities that runs through, supports and is supported by a programme of rigorous and relevant research, with networks of partnerships that traverse the worlds of policy, practice and social research. It alerts us to the fact that the impact of research might also be broader than habitually envisaged, as we strive not just to produce a class of expert researchers, but a diverse community in which there is greater mutual understanding and permeability between areas of activity and expertise.

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