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<th>School-focussed research: Action research and other perspectives</th>
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The nature of the orthodoxy in social science research methodology is best understood in terms of the world view that each position or approach exemplifies. It is therefore important to uncover the assumptions that characterise a particular world view, which was what Prof Stephen Kemmis and Dr John Izard did in their separate keynote addresses delivered at the Second Annual Conference of the Educational Research Association (4-5 September 1988) held at the Institute of Education under the general theme of School-Focussed Research for Educational Excellence.

The principal objective of the annual Conference was to provide a forum for researchers in Singapore to present and discuss their work. A special feature of the Conference programme last year was the provision of two symposia, one on School-Based Projects and Action Research, and the other on Teacher Professional Satisfaction. The first symposium, based on survey data collected from some 100 schools, provided an opportunity to assess the status of school projects and consider ways of strengthening the capacity of the schools to undertake those projects while the second symposium discussed the Singapore findings taken from a nine-country cross-cultural research project on teacher professional satisfaction and sources of teacher enthusiasm and discouragement.

The addresses by Prof Kemmis and Dr Izard are reproduced in this special issue which contains altogether eight of the 29 papers presented at the Conference. There are three papers on the cross-cultural project on teacher professional satisfaction, one each on student thinking and the characteristics of an effective mathematics teacher as perceived by teacher trainees, and the eighth paper is on pastoral care. Other papers not included in this issue, owing to space limitations, dealt with research in the areas of career development, teacher education, mathematics education and language education.

Since the theme of the Conference suggests that it is in the schools that much of the research should be sited (i.e. school-focussed), it was decided that this issue should draw readers’ attention to the variety of research (in terms of both methods and content) that could be carried out in schools involving teachers and pupils and the opportunities for collaborative work in what is known as action research.

**Action Research**

Educational action research has developed into an important movement, assisted by a burgeoning interest in what is often referred to as qualitative research. Reportedly action research started in the United States (US) at about the time of the progressive education movement (in the 1930s); the development of such research (in the US) is often attributed to Kurt Lewin who in the 1940s was keen on the idea of using “field experiments” and collaborative effort to bring about social change in group or community settings. Interestingly enough, action research seems to have had its roots in an intellectual outlook that favoured a
“scientific” approach to problem-solving in a social context. In fact, McKernan (1988) claims that “careful study of the literature shows clearly that action research is a root derivative of the scientific method reaching back to the science-in-education movement of the late nineteenth century”.

Although action research suffered a decline in the US in the 1950s, the idea itself spread to the United Kingdom (UK), where it was to make its impact felt through the work of the Tavistock Institute of Human Relations. Then action research was picked up as a strategy for teachers to improve their classroom practice. Lawrence Stenhouse and John Elliott, among others, were associated with this stage of the movement, and as a result the teacher-as-researcher model formed the basis of much work in school-based curriculum development as well as in the development of collaborative research in the UK. While the concept clearly encompasses the two elements of research and action, the term itself is defined rather differently by different researchers. While John Elliott published in 1978 the most extensive description of action research, it was Ebbutt (1985), also working in the UK setting, who provided a useful and concise definition of action research, which is “The systematic study of attempts to change and improve educational practice by groups of participants by means of their own practical actions and by means of their own reflection upon the effects of those actions”. As the action research movement developed further and spread, it generated a substantial amount of what Elliott (1985) has called “second-order theoretical reflection” on several themes.

One of these themes (i.e. the place of action research in the relationship between educational theory and practice) was developed by Prof Kemmis in his address “Improving Schools and Teaching Through Educational Action Research”. Recognising the importance of the sources of educational theory, Prof Kemmis (who has been closely associated with the development of action research in Australia) argued that the approach to educational theory must satisfy several conditions. For example, the approach should reject sole reliance on the positivist notions of rationality and objectivity, as implied in the empirical-analytic type of research. “Theorising” in education, according to Prof Kemmis, must take into account the concerns, values and interests of the practitioners (teachers), i.e. educational theory must be related to practice, rooted in the self-understandings of teachers. Teachers are expected to be (critically) self-reflective in order to fully understand and improve their own work. And so to avoid distortions in interpretation, Prof Kemmis suggested a collaborative approach to be undertaken by the teachers themselves. This discussion prepares us for Prof Kemmis’s definition of action research, given in another of his recent papers, which is “… a form of self-reflective enquiry undertaken by participants in social (including educational) situations in order to improve the rationality and justice of (a) their own social or educational practices, (b) their understanding of these practices, and (c) the situations in which the practices are carried out. It is most rationally empowering when undertaken by participants collectively …” (1985).

In brief, action research is that which is carried out by teachers themselves into their own practices, and is best done collectively; in many ways, action research works towards redefining the relationship between researcher and the researched, theory and practice. Prof Kemmis therefore saw in action research the development of an alternative research paradigm.

But is action research only good practice and reflexivity? Are there techniques which distinguish action research from other types of research? Prof Kemmis’s answer, given in the 1985 paper, was: “What distinguishes action research is its method rather than particular techniques. The method is based on the notion of a spiral of self-reflection (a spiral of cycles of planning, acting, observing, and reflecting). It is essentially participatory in the sense that it involves participants in reflection on practices”. Prof Kemmis then added: “While it is common for educational action researchers to keep focussed diaries about specific aspects of their practice, to make audiotape records of verbal interactions in classrooms or meetings, 2 - SINGAPORE JOURNAL OF EDUCATION
to carry out group interviews with students after particular lessons and so forth, these techniques for recording are not particularly distinctive”.

Dr John Izard, on the other hand, took a slightly different position in his paper entitled “Development of Research Skills to Improve School-Focussed Research”. To Dr Izard, it would appear that action research is just one type of school-focussed research which, in his view, could well include collaborative efforts between classroom teachers and researchers. Referring to a so-called “research typology” (pace Prof Kemmis), Dr Izard reiterated that “action research is qualitative where the teacher is investigating presence or absence of particular qualities in children, and quantitative when the teacher counts the events or reports proportions or averages . . . .” He then identified some of the features of school-focussed research and the concerns that such research addressed. With regard to research designed to improve classroom learning, for instance, Dr Izard noted that “the important elements of such research have to include trials of alternatives under comparable conditions, a gathering of evidence on the relative success of strategies, and judgements about this evidence in order to reach some conclusion”. These features are rooted in the established canons of disciplined inquiry.

It is clear that both Prof Kemmis and Dr Izard accord importance to systematic, disciplined inquiry and respect the value of evidence properly collected; where they probably disagree would be in the criteria with which to judge the validity of claims to educational knowledge.

Teacher Professional Satisfaction

The question of collection and interpretation of evidence in school-focussed research is handled in a different way by the nine-country cross-cultural comparative research project teams, as explained in the paper by Prof Allen Menlo and appropriately exemplified in those by Dr Sim Wong Kooi and Dr Frances Lee Moi Fah, which should be read together. The two papers complement each other. Both quantitative and qualitative approaches were employed in that project. The subject was teacher professional satisfaction and the sources of enthusiasm and discouragement in their professional work.

Prof Menlo’s paper “Doing Research on Teachers’ Professional Satisfaction” provided the backdrop for the other two reports. It explained the general design of the study and IE’s membership of this Consortium for Cross-Cultural Research in Education, the aim of which was to “generate basic behavioural science knowledge, applied knowledge about the nature of teaching and schooling, and policy and practice recommendations for the improvement of education within the cultural settings involved”. Research into teacher professional satisfaction has been undertaken for various reasons, although the concept of job satisfaction in teaching remains a difficult concept to define and measure.

Dr Sim Wong Kooi in “The Job Satisfaction of Teachers in Singapore” used the quantitative approach as it was appropriate for the main research question explored: To what extent are certain background and job characteristics related to teacher job satisfaction for a sample of secondary school teachers? What emerged from an analysis of the data set (n = 926) constituted two well-defined dimensions of teacher job satisfaction with the amount of stress experienced playing different roles. For overall job satisfaction, stress should be reduced, if not eliminated, for teachers to enjoy their work, while in contrast, work orientation is expected to be stressful although satisfying especially in the attainment of work success. A conducive work environment, allowing teachers to undertake activities leading to their professional development and their enjoying a teacher-pupil rapport, was found to contribute to a stress-reduced situation which in turn was associated with overall satisfaction. On the other hand, provision of overall professional autonomy with teachers being able to assume a pastoral role and exert better pupil behaviour control could be associated with work orientation. The relationship between teachers’ background variables and the dimensions of job satisfaction was less clear-cut, however.
In her paper on another aspect of teacher professional satisfaction, Dr Frances Lee reported the findings that emerged from a content analysis of interviews conducted with 211 teachers drawn from 14 schools in Singapore. A complex method of group interview followed by individual explanation attempted to identify and characterise the sources of enthusiasm and of discouragement in their jobs.

Dr Lee reported that the most important finding was the close link between teacher professionalism and the quality of teaching. They were enthused by creative methods of teaching, teaching preferred subjects and ECAs and establishing a good rapport with pupils. On the other hand, they were discouraged by excessive supervision, having to cope with constraints and performing non-teaching tasks, although these negative sources could well be turned into positive forces if the teachers could begin to understand their changing roles in the school. The role of context in shaping social relations must be recognised. Dr Lee therefore identified certain senior staff positions in a school (e.g., principalship, vice-principalship and headship of departments) as important sources of satisfaction and dissatisfaction.

Student Thinking

While good teachers have always created classroom environments that encourage student thinking, the direct teaching of thinking skills is beginning to be regarded as a new priority in the school curriculum. But how do our students think? As an excellent example in disciplined inquiry of the creative impulse to make an intuitive idea explicit, Mrs Belinda Charles’ paper entitled “The Ability of Secondary School Students to Imagine Possibilities” makes interesting reading. In the paper, Mrs Charles reported on her research aimed at identifying the thinking patterns of a sample of 800 secondary students (aged 13-16) drawn from six schools. The study was based largely on Piagetian concepts of cognitive development. As Mrs Charles put it, “What differentiates the child of seven to eight years and the child of eleven to twelve years is the ability of the latter to understand infinity, to tolerate not knowing the limits . . . . The attainment of this greater tolerance for open situations as opposed to closed situations is sometimes called maturity or experience by teachers and onlookers”. The researcher’s conclusion was that the ability to involve possibilities beyond what was given increased with age. The greatest change occurred between ages 13 and 14. The amount of variance attributable to gender, home background as represented by parent’s education was not much, although academic achievement had a stronger relationship with judgmental ability than did the two variables. While age did make a difference to judgmental ability, even the 16-year-olds (the oldest group in the sample) were not entirely comfortable about delaying judgment or about considering factors outside the given context.

Characteristics of Effective Mathematics Teachers

Outside the process-product tradition of research, which has dominated investigations on teaching, there is much to be said for exploring student-teachers’ knowledge structures as part of the attempt to build a knowledge base for teacher education in Singapore. On a more generic level, Dr Lim Suat Kho and Dr Wong Khoon Yoong, in their joint paper “Perceptions of An Effective Mathematics Teacher”, examined pre-service trainees’ understanding of effective teaching, specifically their perceptions of an effective teacher of mathematics since such knowledge would provide an insight into the nature of teacher thinking that may affect lesson planning. The three characteristics highly rated were: Ability to explain concepts etc clearly, being confident and at ease when teaching, and ability to convey an enthusiasm for mathematics. As the authors noted, the main challenge to teacher educators is to transform these perceptions into a training programme so that these same perceptions could be realised.

Pastoral Care

An important aspect of a school’s broad-based
education strategy to develop the “whole person” would require a careful coordination of the personal, social and intellectual development of pupils. In their paper, “Pastoral Care in British Schools: Applications for Singapore”, Miss Vilma D’Rozario and Prof Lawrence Chia presented a case study of how one secondary school in Singapore had incorporated pastoral care into its school organisation. A framework for a three-fold approach to pastoral care in Singapore schools was outlined. Implications for research in the area of pastoral care were also proposed.

Concluding Remarks

In an attempt to stimulate inquiry and research efforts in Singapore, the Educational Research Association has initiated since its first annual conference in 1987 a number of invited papers from well-known scholars addressing significant directions of inquiry in educational research. The addresses of Prof Kemmis, Dr Izard and Prof Menlo reproduced in this issue belong to this category, and they complement the good work of local researchers. Taken together, the eight papers constitute an invitation to adopt a kind of identity that characterises school-focused research in Singapore — eclectic in approach encompassing empirical, qualitative and interpretive methods and also comprehensive in coverage.

Action research, which offers itself as an alternative to the psycho-statistical tradition of educational research, has much appeal for the self-reflective classroom teacher, keen on improving his practice through reflectively-acquired self-knowledge. But action research in a school setting, if it is to be collaborative, has to be supported institutionally. As Stenhouse noted in 1975, with particular reference to school-based curriculum development and research in UK: “The power of the individual teacher is limited. Without his strengths the betterment of schools can never be achieved; but the strengths of individuals are not effective unless they are co-ordinated and supported. The primary unit of co-ordination and support is the school”. It would seem that the institutionalisation of action research in a school environment should be an appropriate topic for discussion at school meetings.

Finally, it is my special privilege to have had the opportunity to work with the eight contributors, and I thank them for their very helpful and constructive response to editorial suggestions.

REFERENCES


