A Developmental Approach to Classroom Action Research

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ABSTRACT

Classroom action research has many benefits but often it remains as a rhetoric given the realities facing the teacher. There are many constraints facing the teacher. These constraints have to be addressed and a developmental approach to training teachers and promoting classroom research could perhaps be the appropriate choice of strategy to make classroom teacher research a reality. This paper addresses these issues and proposes the conditions that would encourage classroom teacher research and a developmental approach to promote classroom teacher research.

INTRODUCTION

Classroom research has been conceptualized and understood variously to encompass a host of meanings. These include basic academic research done by academicians about classrooms to the notion of classroom action research, and in its simplest form, the idea of teacher using simple research tools to gather feedback data about teaching and learning in the classroom. These various meanings vary in terms of intention, scope, level of complexity and the degree of methodological rigour. The aim of classroom research has its theoretical and practical underpinnings in the premise that it can contribute both theoretical and practical knowledge towards the improvement of teaching and learning in the classroom and extending the benefits to school-wide improvements.

Over the last few decades we have witnessed an increasing interest in the movement towards teacher as researcher where the teacher is seen as the practitioner who knows best and whose "with-itness" makes the teacher an important player in the classroom. Classroom research has shifted from the academicians' perspective to the teacher's perspective. Methodology has also somewhat shifted from the academicians' positivistic paradigm towards naturalistic and critical paradigms. This paradigm shift in perspective and philosophy can be traced to the works of advocates of classroom teacher research such as Elliot and Alderman (1976), Stenhouse (1975), and Carr and Kemmis (1986). Classroom teacher research refers to teachers doing research about their own classrooms with the intention to improve practice and consequently the class and at the wider level, the school. While initially

classroom teacher research was mainly focused on the teacher's classroom, the nineties have seen this activity extended to school-wide improvement efforts. These advocates argue that classroom research by the teacher not only contributes towards overall school improvement but also to the professional development of the teacher. The evidence from various project reports has mainly supported this argument (Hopkins, 1993; Arhar, et al., 2001). Classroom teacher research has also been advocated as a means to engage and develop teachers' reflectivity with the aim of becoming a "reflective practitioner" (Schon, 1983, 1987).

Given the many benefits of classroom research by the teacher, it would seem that the movement would surely spread its wings. However, this has not been so and teacher involvement in research has been low (Henson, 1996) and often "struggles on the margins of schools" (Cochran-Smith & Lytle, 1990). In most cases, and in the context of our schools, it tends to remain as rhetoric in the face of the realities facing the teacher in the school. At the teachers college level, there is no doubt that the Teacher Education Division (TED) continues progressively and aggressively to promote a research culture among the academic staff of teachers colleges. Together with the colleges it has generated volumes of work and though it lacks a researcher-friendly database system to help organize its works it does have a body of knowledge, albeit disorganized. Given this scenario it would seem that research activity among academic staff in the colleges must be high-keyed but there is little conclusive evidence to defend this claim if we were to judge by the number of teaching staff doing research in the college.

Hopkins (1993, pp 1) reflected on the impact of the centralized top-down educational system and indicated that perhaps we still "live in an educational system that tends to limit individual initiative by encouraging conformity and control". This factor may be unalterable but it should not mean that we should abandon classroom teacher research. Instead we should find a solution to overcome this challenge. The benefits are many and the evidence of its efficacy in contributing to classroom and school improvement is quite indisputable. This paper proposes that certain conditions are necessary to encourage classroom teacher research and recommends a developmental approach to promoting classroom teacher research.

THE RHETORIC AND THE REALITY OF
CLASSROOM TEACHER RESEARCH

There are many reasons for advocating teachers' involvement in classroom research. These include the closeness of teachers to the events being researched, the need for continual professional renewal through reflection on and evaluation of practice, and the importance of linking theory with practice by testing ideas in their classrooms. While there are many reports

of successes within the teacher-as-researcher movement, the reality is that teachers' classroom research has not become widespread. This is true even in the teacher training colleges. Classroom teacher research has not been seriously incorporated into teacher education programmes. Given the many reasons for teachers' classroom research, the case for promoting it seems strong. But in reality it is something easier said than done.

There are many reasons why classroom research is not a part of the teachers' work routine. Many teachers believe they lack the skills and therefore lack confidence (Fueyo & Koorland, 1997; Henson, 1996). At the school level, working in an environment where research is not appreciated or valued makes teacher research difficult. There is usually little support from the school administration. Time is required to engage in teacher research. The rigid schedules in many schools exacerbate this difficulty (Henson, 1996). Teachers feel discouraged to do research as it is often perceived as an activity that is very time consuming and demanding. Research is often thought of as involving comprehensive literature review, documentation and publication. Such activities require time and resources which the teacher and school can hardly afford. Their core business of teaching and school-related work leaves them little time to do research.

While academicians are allocated the time and resources to do research as part of their professional work and gain promotion and credit, teachers are not given such means or recognition for promotion or credit. Besides time, resources and recognition which are the main constraints to teacher doing classroom research, there is no visible community of teacher researchers to share and disseminate their work. There is a lack of avenue for seminars and conferences for teachers to interact and share their work. While academic journals are usually for the academicians and reserved for academic articles there is a lack of journals or publications for teachers to publish their work which are often considered as lacking methodological rigour for academic journals.

Given that research is not a normal part of the teacher's role, there is little wonder that research has not been seriously incorporated into preservice and inservice training. While the rhetoric continues to promote research as a professional development activity, the reality is that it has yet to be considered as part of the teachers' professional role. It would seem then that classroom research among teachers remains rhetoric. The implication however is not that we should abandon it given the potential benefits for teachers and for research in general. Given the constraints, the challenge is how to establish the conditions conducive for research by teachers and find an approach to make classroom research do-able and practical for teachers.

CONDITIONS FOR CLASSROOM TEACHER RESEARCH

To encourage classroom teacher research, conditions under which teachers work must be conducive. The constraints on classroom teacher research must be addressed. At the school level, some provisions in the form of incentives for teachers, establishment of support networks, and the reform of rigid organizational patterns in schools should be introduced. At the higher level, provisions for funding of research and training of teachers should be instituted. The following is a list of suggestions that may address some of the constraints, particularly at the school level.

1. Time and resource must be allocated to the teacher. To avoid making research as just another addition to a teacher's work load, arrangements can be made to enable teachers to do research. These may be in the form of reducing teachers' work load and providing release time for teachers to attend seminars, workshops, visit other classrooms and schools. Financial support for their research projects and the opportunity to share and disseminate their work are also important ingredients. These suggestions may imply the need to have more teachers and this would not be feasible without top level intervention. Alternatively, at the school level, school related work could be reorganized in a way that would lessen teachers' non-teaching workload. For example, teachers could be freed from being redundant in some committees. Technology such as ICT could be introduced to lessen teachers' time spent on non-teaching school work.

2. Classroom research must be rewarding to teachers. Some form of extrinsic incentives must be provided although intrinsic rewards are more important to sustain teachers' work. The school could perhaps make classroom research part of the teacher's professional role and take it into account for annual teacher assessment. As Hopkins (1993) advocates, research should be a part and parcel of professional teaching. This does not mean that we should implement this as a mandate and compel every teacher to do research. Instead, we should start with incentives rather than compulsion.

3. Regular workshops should be organized for teachers to develop skills and share their experiences. This would help to create and encourage a classroom research culture among teachers. These workshops could be organized during weekends or school holidays so that regular classes are least affected by the teachers' absence. Teachers would have to sacrifice a few weekends in a year to get together for training and sharing.

4. Cochran-Smith and Lytle (1990) argue that because teacher research requires systematic and self-critical inquiry, networks and forums will

need to be established to ensure that ongoing collaboration is possible and teacher research sustainable. Such networks will begin to function as intellectual communities for teachers who have typically been isolated from each other. A research attitude is difficult to maintain in isolation, but is fostered with collegial support. Support networks would also help to engage more teachers in research. In our context, the school authorities or teacher training colleges could organize annual seminars on classroom research for teachers to participate. These organizations can also promote publication among teachers.

The above conditions may have implications on school management and administration. It may mean a reshuffling of the time-table or a reorganization of school work. Sudden abrupt changes can be disturbing. Teachers on the other hand may find classroom research too demanding on their time and energy if it is introduced too suddenly. Attitude towards research among teachers may not be positive. Teachers' attitude is perhaps the most important factor contributing to its successful implementation. Change has to be introduced progressively so that little time and effort is needed for the beginners. Teachers must first buy the idea, willing to try, and see positive results. It takes time for teachers to grow professionally.

A DEVELOPMENTAL APPROACH TO TEACHER ACTION RESEARCH

In proposing a developmental model to action research, two important considerations were taken into account. Firstly, the model needs to consider teachers' growth from a developmental perspective and secondly, the model needs to consider teachers as practitioners who are already fully immersed in the classroom with all the constraints of the reality of the school which exert a strong influence on teachers' growth.

Teachers' professional growth can thus be perceived from these two perspectives. The developmental perspective (for examples, Fuller, 1969; Glickman, 1985) focuses teacher growth over time while socialization theories (for example, Zeichner, 1987) focuses growth across space. The former emphasizes time, experience and practice as the main variables contributing to teacher growth while the later emphasizes the context, milieu and the school culture as important factors that determine the teacher's growth. Both perspectives are legitimate and complementary in explaining teacher growth. While time, experience and practice are needed for teacher growth, the context of growth is equally important as it may do both good and harm to professional development. A conducive context for professional development is important as it provides the scaffolding for professional growth. However a poor environment may stunt the teacher's professional growth. Studies have indicated that a poor work culture and poor school context often have adverse effects on both preservice teachers during the

practicum and on the beginning teachers (For examples, Kagan, 1992; Weinstein, 1990; Nettle, 1998; Toh, 2002).

Given the contextual constraints and the theoretical basis for growth, a developmentally appropriate approach to classroom research is proposed for teachers in our schools. In providing the context for growth the conditions proposed earlier are relevant to this issue. Apart from these conditions, training must be designed to develop classroom research skills developmentally and progressively from basic to advance skills in classroom research. The training should be "hands-on" and experiential where teachers actually carry out classroom research activities. Table 1 shows the matrix of classroom research skills development which can be the basis for designing training according to the three stages of skills development from basic to advance.

The matrix in Table 1 advocates that teachers can start doing simple classroom teacher research by incorporating it into their teaching. For instance, simple data on student feedback about teaching and learning can be collected at the end of the lesson. This takes only about 5 minutes. Such feedback data can be easily analyzed without anguish and help the teacher to reflect and plan the next lesson. Advocates of this brand of simple classroom research focus on finding out if students have learned and helping the teacher to modify the next lesson. This model of classroom research using simple assessment instruments proposed by K. Patricia Cross and Thomas A. Angelo (1980) of UC Berkeley has much appeal because of its simplicity. It consists of two aspects: a repertoire of simple techniques for getting information from students about their learning and an effort to organize the information into a larger picture of practical learning theory. This approach takes up little time of the teachers. Data can be collected and analyzed in a matter of minutes for the teacher to modify the next lesson. There is little formal reporting required and teachers can share their work at meetings and workshops. Report writing can be in the simple form of teacher narratives of their experience.

As the teacher progresses and begins to see the benefits of classroom teacher research, training on classroom research can then move on to the intermediate and advance stage of developing skills. At this stage one of the cyclical models of action research (Elliot, 1991; Kemmis, 1982) can be adapted to the needs of the teacher and the school. The focus of research can shift beyond just mere feedback on student learning. Collegiality and teamwork may be introduced to foster a collaborative framework for action research. Data collection and data analysis techniques can be expanded to include the use of triangulation to support and verify data. The demand for methodological rigour can be increased. At these two stages, the teacher should be provided with training and opportunity to report and share findings more widely at national seminars and in academic journals.

Table 1

Classroom Research (CR) Skills Development

CR Skills	Examples of goals/focus/techniques for each Stage of Training		
	Basic	Intermediate	Advance
Goals/ purpose and Plan	Improving teaching and learning. No specific time-line for plans.	Improving classroom teaching and learning across subjects. Teamwork and collegiality Time-line for plans so that regular meetings for discussion can be fruitful.	Classroom and school improvement across subjects and classes. Teamwork and collegiality. Time-line plans for regular meetings and sharing.
Focus	Focus on feedback on individual lessons.	Developing focus from feedback/ reflection/ discussion. Collegiality and team discussion across different subjects for the same class.	Team discussions and negotiations to identify focus that can lead to classroom and school improvement. General review of related theories and literature.
Data Collection	Simple 1-minute student feedback at the end of lesson. Students may be asked to write on a piece of paper/card on what they have learned, what questions they still have, etc. Teacher may design simple 1-minute questionnaire for students to respond.	Simple quantitative and qualitative techniques such as developing tests and questionnaires, keeping diaries and journals, structured interviews, simple classroom observations, and using audio recorders.	Quantitative and qualitative techniques of data collection. Collaboration and team work in data collection.

Data Analysis	15-minute simple analysis of feedback and plan for next action.	Simple statistical analysis, coding and drawing themes from descriptive data. Reflection and drawing conclusions for further action	Using both quantitative and qualitative techniques including software for data analysis. Team reflection and drawing conclusions for further action.
van Manen (1977)'s Level of Reflection	Technical reflection: effect of action on outcomes.	Technical to practical reflection: effect of action on outcomes and appropriateness of outcomes in relation to the context.	Practical to critical reflection: appropriateness of outcomes and consideration of moral and ethical implications of actions and outcomes.
Reporting & Sharing	Simple reports documenting experience. School-level group discussion and school district level seminars.	Writing brief reports/ articles. School district level seminars. National level seminars on classroom research.	Writing reports and journal articles for publication. Seminars and conferences at national and international levels

The progression of reflection from technical to critical reflection is proposed in this developmental model. At the basic stage, the teacher is engaged in technical reflection, examining the effectiveness of action or means on the outcomes and considering alternative action or means to further enhance the outcomes. As the teacher progresses to the intermediate and advance stages, training should now shift focus to higher levels of reflectivity, vis-à-vis, practical and critical reflection.

THE ACTION RESEARCH CYCLE

The action research cycle proposed in this model is adapted from existing models. The proposed model begins with data collection and reflection before identifying the focus for action. Figure 1 shows the cyclical model

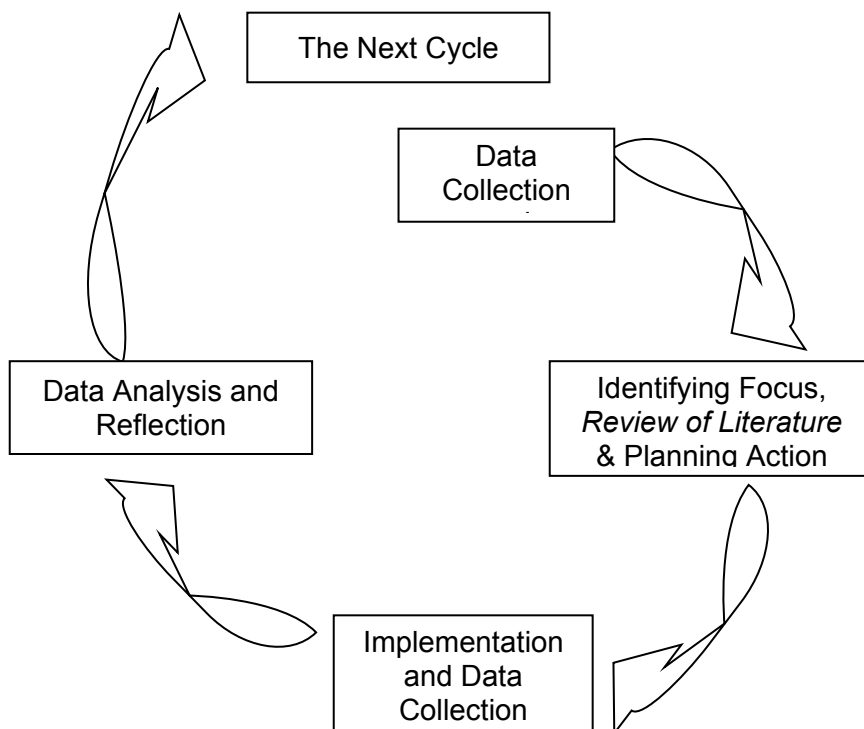where the teacher begins by collecting data and reflecting on the data to identify the focus for action.

Figure 1. The Action Research Cycle

Given that teachers are practitioners fully immersed in the classroom, it is proposed that teachers should begin classroom research by collecting simple data (basic stage) about their teaching and students' learning in the classroom. The practice of collecting simple feedback data on teaching and learning is necessary to keep the teacher always informed about one's practice. The teacher reflects on the data collected to find the focus for action. Thus, in this proposed model, action research begins with data and reflection before identifying the focus for action. For example, the teacher may begin by analyzing learners' existing background record and test scores. The teacher may also collect current data on learners' weekly or monthly test scores and simple feedback data from the learners over a few lessons using a simple feedback instrument. The teacher can also collect data by making notes on learners' behavior in the journal. The data

collected can be easily analyzed and helps the teacher to reflect and identify the focus for planning action.

At the basic stage, there is no specific time-line. Each action cycle can be as short as a week or as long as a month, depending on the nature of the focus and the action implemented. For example, the teacher may want to focus only on a simple technical problem such as technique to sustain learners' attention in class. Each cycle may be as short as a day or a week when the teacher implements a specific technique and collect data on the effect on learners. While reviewing related theories and literature may not be necessary at the basic to intermediate stage, the teacher should guard against planning and implementing an action that may not be pedagogically or educationally correct! The teacher may however engage in discussion with colleagues before implementing the action. At the advance stage, the teacher should review related theories and literature in planning the action to avoid this problem.

CONCLUSION

It is not easy to be a teacher and also a researcher. The advocates of classroom teacher research have consistently argued that it should be an integral part of teaching and not apart from it. Conditions must be conducive to promote and encourage it among teachers. The role of school leaders in promoting classroom teacher research is very crucial if it is to become a reality among teachers in our schools. Over the last few years some teachers colleges have embarked on inservice programmes to train and start classroom teacher research among school teachers in some school districts. However the effort does not seem to sustain but usually ends when the programme ends. It is not difficult to start the ball rolling but to sustain it is clearly a challenge that we need to consider. This paper proposes a developmental approach to train and promote classroom teacher research so as to address some of the concerns and constraints related to teacher doing research in schools. However, the support of school heads and administrators in setting the conditions and the context for classroom teacher research is paramount and totally necessary if classroom teacher research is to be promoted as a means of professional development as well as a practice towards school improvement.

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