13 ACTION RESEARCH AND CURRICULUM TRANSFORMATION

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Appraising the products of our scholarly effort should not be in the spirit of 'This is it', but rather in that of 'What have we here?' If this, then what possibilities are next? (Eisner & Peshkin 1990, cited in Henning 1993:114)

INTRODUCTION

When society changes, higher education curricula require corresponding changes because, as noted by Patesan and Bumbuc (2010), institutions of higher education are at the top of the education pyramid; they represent the end of formal education and offer the last opportunity for entry into the world of work. There is wide consensus on the educational outcomes that will help students survive in a 21st century workforce, the most prominent being the development of habits of mind, learning strategies and skills fostering continued growth after graduation and contributing to lifelong learning (Chaka & Ramothea 2010; Harris & Cullen 2009; Holland 2006). A well-recognised way of achieving these goals is through revision of traditional curricula to shift the focus from instruction to active learning (Graffam 2007).

There is a notion that equipping students with the skills to search for information themselves is more valuable than expecting them to assimilate large volumes of learning content. This notion gained prominence and became the basis of new policies in South Africa in 1997 when the government announced the introduction of outcomes-based education (OBE) at all levels of the South African educational system (Jacobs & Chalufu 2000). Institutions of higher education were encouraged to make their curricula responsive to the social and economic agendas of the country. The South African Qualifications Act No. 58 of 1995 (SAQA 1997), the Education White Paper no. 3 (RSA DoE 1997), and related regulations and guideline documents demanded tertiary education encompassing not only knowledge, but also skills and attitudes needed for successfully entering the world of work. This meant a shift towards focusing on previously neglected lifelong learning skills such as self-direction, solving problems

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derived from professionally authentic contexts, collaboration with others, finding and evaluating information, communication and meta-cognition (Gultig 1997; Jansen & Christie 1999).

In the School of Medicine at the University of the Free State, the start of the academic year 2000 marked the inception of a new, five-year undergraduate Learning Programme for Professional Medicine, leading to an MB ChB qualification. The shift towards an innovative undergraduate curriculum was inspired by Outcomes-based Education (OBE) guidelines and policies. The arguments for renewal were furthermore aligned to criticism of traditional medical curricula at international level. At that time, numerous studies pointed towards the need for curriculum change in medicine on the grounds that traditional curricula did not promote active, collaborative and self-reflective learning (Fowell, Maudsley, Maguire, Leinster & Bligh 2000; Guilbert 2001; Harden & Crosby 2000). Starting to apply OBE principles in the new Learning Programme for Professional Medicine (MB ChB) was also consistent with the guidelines for student-centred education of "tomorrow's doctors", formulated a few years earlier by the General Medical Council (GMC 1993) and the World Health Organization (Boelen & Heck 1995). In South Africa in particular, the *Cape Town Declaration* (1995) on the education and training of a "doctor for Africa" and principles for quality assurance formulated by the Health Professions Council of South Africa (HPCSA 1999) provided momentum to curricular change initiatives.

Curriculum 2000, as the new programme was commonly referred to, introduced significant changes to the traditional pattern of teaching. Main curricular features of the innovation were fewer lectures, supplemented by directed learning; a greater focus on the social and cultural underpinnings of health and disease in core content modules; early clinical experience; new forms of assessment; and ultimately, alongside core outcomes in the biomedical sciences, the inclusion of critical cross-field outcomes. In general, the management and academic staff in the School of Medicine ('the School') were in agreement with the larger societal goal of higher education, namely not only to help students develop the skills, abilities and dispositions that would enable them to manage academically, but also to prepare them for the complexities and responsibilities of leading socially accountable lives. What was not totally clear was how outcomes such as these would be pursued and, in essence, how they would be assessed.

CURRICULUM TRANSFORMATION REQUIRES A SPECIAL KIND OF KNOWLEDGE

The modern concept of curriculum change is that of an ongoing process of enhancing the quality of teaching and learning (McDonald & Van der Horst 2007). Quality, in turn, is understood to refer to a process of self-reflection and co-construction of knowledge for improving theory, propelled by an ongoing improvement strategy in the management of the process so as to improve action (Martí & Villasante 2009). This view is in line with what a good social order presupposes, namely that people who are constructing a new order should be accountable for what they do. Against

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the backdrop of such an understanding, curriculum change, quality and improvement have to do not only with doing different things, but also with subtle and unique details to which only the participants in a particular learning situation have access. Therefore, wanting to 'measure', by standardised scales, the outcomes and effectiveness of curriculum changes brought about by a critical, reflective disposition towards daily practice makes little sense (Stacy & Spencer 2000). What is needed, instead, is a special kind of knowledge that may help educational practitioners understand and effectively deal with particular problems related to educational change. This kind of knowledge, as distinguished from empirical-analytic and historical-hermeneutic ways of knowing, may be generated through action research (Somekh 2006; Somekh & Saunders 2007).

The usefulness of action research to move away from a casual type of curriculum improvement, towards collecting data/evidence more objectively and systematically with the distinct goal of acting on it, is well recognised (McKernan 1996; Nason & Whitty 2007; Noffke & Somekh 2009; Somekh 2006). This goal, however, remains out of reach if an educator simply asks him- or herself superficially: "Am I doing a good job?" and goes on to ask students and other stakeholders the same question, thus evoking the idea of a traditional type of research evaluation (Martí & Villasante 2009). From a post-modern perspective, Kvale (1995, cited in Reason 2006:191) refers to action research searching for validity in this vein as "an expression of a modern legitimation mania". Action research that leads to sustainable innovation seeks validity in the "craftsmanship of inquiry" (Reason 2006:191), incites discourse (Lather 2001, cited in Reason 2006:191) and is characterised by a forward-looking approach to trying out new ideas. Depending on the research findings, these ideas may or may not lead to changed practices. There will nevertheless always be an implementation of findings, informed by the learning of those involved in the research (McNiff & Whitehead 2006) and accompanied by changed attitudes towards what is being researched (Kember 2000).

When curriculum change is considered from an action research point of view, there is a great deal more at stake than change on paper: more often than not curricular inquiry through action research leads to practitioners changing themselves, their relations with others, their values and their ways of working (McNiff & Whitehead 2010). More than half a century ago Anderson (1956:247) identified these imperatives as the very reason why some people frown on action research: "[I]t is much more difficult to carry on [sic] research with the idea of improving our own practices, for it is always easier to suggest that someone else change[s]."

What follows is a selective account of how I approached my task as leader of an 8-credit module on the development of general skills (Module MEA112) with the deliberate intention of using action research and self-reflective learning to make rigorous, informed judgements and decisions about the integration and assessment of critical cross-field outcomes in the first year of the Learning Programme for Professional

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Medicine. It tells the story of how action research afforded me the freedom, space and autonomy to be more than a recipient of SAQA's directives on critical cross-field outcomes. In partnership with other staff members committed to changing the undergraduate medical curriculum, I could pay attention not only to the products of the decision to explicitly include and assess the so-called 'soft skills' in the medical curriculum, but also to the process in terms of nuance, setting, interdependencies, complexities and the context of the School of Medicine at the University of the Free State.

FINDING A FOCUS

Starting points for action research projects typically arise from experiences of discrepancies (Altrichter, Posch & Somekh 1993). The tension between seeing general skills development as something that should happen *in addition* to academic study, or as something that should happen *through* academic study, was at the centre of the dilemma that spurred this study. Cognisance was taken, on the one hand, that embedded development and assessment of performance-based tasks requiring students to apply certain key skills was the route to follow because students tend to be unmotivated and puzzled by skills modules that are not firmly embedded in subject learning content (Fallows & Steven 2000). On the other hand, there was ample evidence to show that embedded skills development often meets with resistance from academics who fear that an embedded approach will further reduce their limited curriculum time (Fallows & Steven 2000). Against these literature perspectives as a background, the following questions started crystallising in my mind: What is the *status quo* in core modules as far as the incorporation of critical outcomes are concerned? What is it that I would like to change? What are the possibilities for change through the medium of changed assessment tasks?

Following the advice of Winter (1996), who emphasises the point that certain key issues should be sorted out before action research begins, I had to decide what problem should be singled out for thorough investigation, and also acknowledge where my genuine interest lay in respect of this problem. Assessment of critical outcomes became the focus. The reasons for focusing on assessment were twofold. Firstly, it was clear from literature that assessment often does not reflect curricular changes; that it tends to suffer from the *bolting-on syndrome* in that assessment practices are not subjected to the same degree of scrutiny as content or teaching and learning approaches (Biggs 1999). Secondly, assessment would be within the locus of my control as I was the leader of the module on general skills. Reinforcement of the notion to focus on assessment came on 22 November 2000 when Professor Filip Dochy from the University of Leuven presented a workshop on assessment on the campus of the University of the Free State. Many of the issues that I was grappling with at that stage were addressed, including the following: how to break down student and staff resistance to new forms of assessment; how to use peer assessment in a way that would render reliable results; how to introduce group assessment fairly.

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The possibility of systematically reflecting on issues such as these, illuminating the process of solving perceived problems, and trying out new ideas with a view to improving the situation, appealed to me as a suitable focus for an action research project. Wilkes and Bligh's (1999) observation that the hard-to-measure character of general skills often causes the development of appropriate assessment strategies to come as an afterthought in curricular change, occurring when the teaching staff are already exhausted, and the students frustrated and confused, gave impetus to the plan of linking my day-to-day task as module leader with action research. Following a practical approach to improving the assessment of critical outcomes held the promise of preventing such a situation in the School of Medicine. As practitioner-researcher I would be able to plan, act, observe and reflect (Zuber-Skerritt 1995) on a multifaceted situation by taking multiple views into account. An action research approach would further permit the process to be flexible, without relinquishing scientific rigour (Badger 2000).

What settled the matter in favour of following an action research approach was my understanding of action learning (presupposed in any action research project), as derived from the work of Revans (Zuber-Skerritt 1992). I could identify with the following values as guiding principles for my educational practice as module leader: acceptance of the dynamics of real life, and thus acceptance of change as a reality; preparedness to take a critical look at the why, what and how of a specific part of that reality (in this case assessment of critical outcomes) as seen from different points of view; flexibility to modify my practice; and finally, a never-ending striving after quality and improvement. Within an action research framework I would be able to show how I examined, interrogated and communicated these values that give meaning to my professional life as a lecturer.

ACTION RESEARCH CYCLE ONE, 2000: DOING SOMETHING NEW

The research project, spanning three year-long cycles, was conducted under my leadership when I studied my teaching practice *in situ*, but I was assisted by a collaborating team of four academic staff members who formed the module development team, and also served as a validating group for the research. As noted by McNiff and Whitehead (2006:250), one cannot do action research alone: "While you may have the original vision of how things can be improved, you must find others who share your commitment." Furthermore, for action research to succeed as a form of curriculum evaluation, surroundings conducive to experimenting and accepting new ideas are required. Such an atmosphere was created when the late Dean of the Faculty of Health Sciences, Professor CJC Nel, introduced a committee structure (see Figure 13.1) to take the curriculum change forward, requesting the various committees and work groups to evaluate their themes on a continual basis with a view to improvement (Faculty Retreat, Clarens, June 1998).

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Stakeholders and role-players whose opinions were captured at different stages during the first year comprised a purposeful, yet comprehensive sample of all students enrolled in the first phase (year one) of Curriculum 2000 (90 students in 2000, 134 in 2001 and 140 in 2002), as well as ten academic staff members who acted as leaders of core modules.

Definition of the problem and initial planning

The focus on assessment referred to earlier was an emergent one that gained prominence only in the second cycle of the action research spiral, based on student and staff feedback, as well as on input from international consultants. A lack of a blueprint on what skills to include in the stand-alone Module MEA112, where to embed skills in core modules and how to assess the acquisition thereof formed the initial, less-focused educational concern. Hence, the primary purpose in Cycle One was to collect evidence to get confirmation that the skills development model the School had chosen was indeed the 'correct' one.

Action steps

The better part of four years was spent in preparing for the curriculum change that culminated in Curriculum 2000. Formulation of the original design for the module on general skills consisted of an iterative process between members of the work group dedicated to attending to general skills and other stakeholders represented in the committee structure depicted in Figure 13.1.

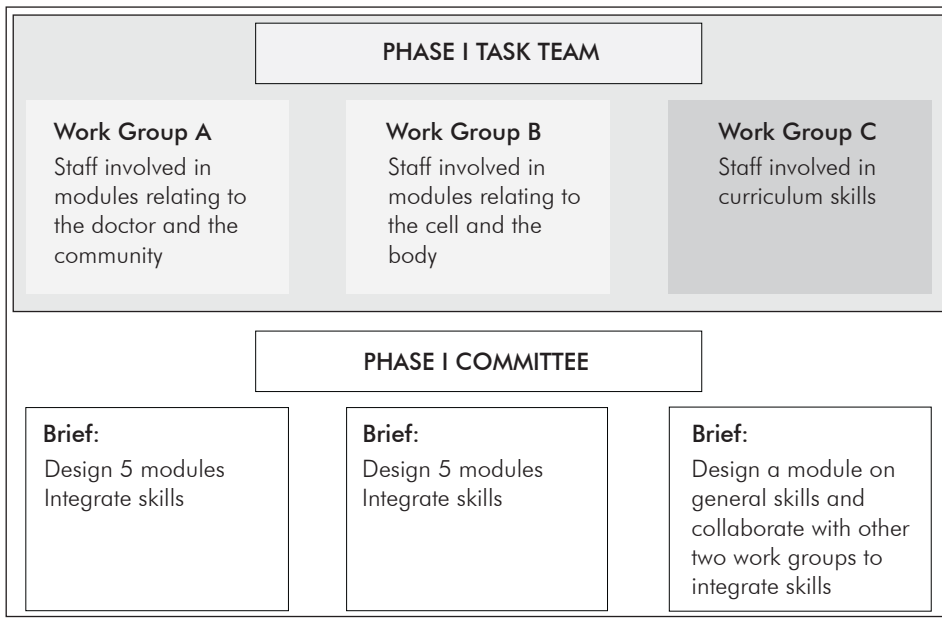

FIGURE 13.1 Committee structure informing the work of the Phase I Committee

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During this preparatory period, the Division of Educational Development, Office of the Dean offered several workshops to orient academic staff members to new expectations with regard to the education and training of doctors. Policy directives, discussed at the African Regional Conference on Medical Education that was held in Cape Town in April 1995, and summarised in the form of the *Cape Town Declaration,* served as a point of departure in these early discussions. A Curriculum Review Committee (CRC), chaired by the Dean and consisting of seven senior academic staff members and educationists, spearheaded the curriculum reform. Regular meetings were held, and several planning documents emerged from their discussions. The work of the CRC was informed by contributions from three Phase Committees and various *ad hoc* sub-groups. In addition, a structure established early in 1998 ensured that the work of each Phase Committee was informed and supported by means of input generated by work groups, each of which had to develop a specific aspect of the new curriculum (see Figure 13.1). In the process of collaborative engagement between the various committees and task groups a rich source of documentation, including minutes, reports and correspondence emerged, which formed the backbone of my reflection on the outcomes of our actions.

Reflection on the findings of a study and developing new ways of understanding a problem are major components of action research. However, unless real action flows from the process, the goal of action research, namely to improve existing practice through educational change, cannot be achieved. To ensure that action would be the outcome of this investigation, the following question was used as a point of departure in each round of data analysis and interpretation: On the basis of what we have learned from this slice of reality, what should we do now? The answer to this question, in turn, formed the basis for new, overarching action plans, which were plotted on various rough versions of the action chart, attached to this chapter as Annexure 13A. The template for this chart was borrowed from the work of Reston (s.a., cited in Mills 2000:115-117).

Observation (collection, analysis and interpretation of data)

Data capture, analysis and interpretation went hand in hand in Cycle One. As it is accepted practice in action research that the researcher should not rely on a single source of data, interview, observation or instrument, a mixed approach employing various data-gathering methods and techniques was used to gather information (Mills 2000:49). Sources of data included student feedback, workshop reports, minutes of committee meetings, official curriculum documentation, observational notes made during meetings and workshops, and trying to understand these in relation to inductive ideas taken from the literature. In following the procedure for information gathering, as described by Mills (2000), reconnaissance activities included examining (personal memos, journal entries, official and unofficial documents emerging from the work that was done to give effect to decisions taken by committees and task teams), experiencing (active participation in committee meetings, workshops and other faculty

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forums, teaching and assessment activities), and enquiring (asking questions by means of questionnaires and interviews). The purpose of these activities was, firstly, to gain an in-depth understanding of the rationale, from the School's point of view, for the inclusion of general skills into the new curriculum in a particular manner, and secondly, to obtain an overview of how the decisions taken by the School were conceptualised in curriculum materials and perceived by students.

Data interpretation consisted mainly of sharing newly-found insights with colleagues and seeking their criticism with a view to anticipating the implications of decisions taken. One such an insight shared with colleagues at a meeting of the Phase I Task Team on 25 November 1998, was the following:

> The powerful influence of assessment on students' learning behaviour should not be underestimated. Assessment of general skills can thus be used to prevent students from regarding skills development as being of minor importance.

A question raised on the same occasion was whether all of the critical outcomes specified in SAQA documentation had to be addressed in the first year of the medical curriculum. Alternatively, the School could identify those skills that were deemed essential for the first year of study and concentrate on them only. The latter option was chosen and put into effect when the module development team compiled the final version of Module MEA112 (see Annexure 13B).

Without my realising, at that stage, that assessment would become a pivotal aspect of the implementation of Module MEA112, my journal entry on 20 January 1999 read as follows:

> A possible strategy: 1. Look at expected exit outcomes of curriculum. 2. Identify tasks students have to perform. 3. Pull out selection of topics or tasks related to skills we would like to teach. 4. *Identify vehicle for testing those skills* [emphasis added].

A prime opportunity for receiving critical comment on the preliminary plans for Module MEA112 presented itself when Professor Stewart Petersen from the Leicester Warwick Medical School in the United Kingdom, one of the most prominent consultants in the curriculum review process, came to visit the School of Medicine in March 1999. From my field notes on Professor Petersen's critique, I condensed a few recommendations for consideration by the module development team, including the following, which echoed my journal entry:

> Skills should be embedded in assessment activities through the identification of activities in core modules where those skills are prominently needed, followed by the formulation of assessment criteria that will test whether intended skills outcomes have been achieved.

Student views on their experience of Module MEA112 were captured by means of a three-stage process. Two and a half weeks after the commencement of Curriculum 2000, 58 Afrikaans- and 30 English-speaking students completed a semi-structured

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questionnaire asking them to comment on what was 'right' and what was 'not so right' in Module MEA112. Disconcertingly, almost one third of the students did not feel comfortable with the assessment process, with special reference to the group project and the oral presentation of its findings. Their views were triangulated by means of a follow-up survey in which they were asked to comment on a summary of their feedback elicited in the first survey. A total of 50 responses indicated that group assignments were unfair and problematic. A few comments indicated that the assessment was perceived to be haphazard and excessive. Further triangulation in the form of a focus group interview with a representative sample of the student target group on 25 July 2000 made it clear that assessment of group performances and products, considered to be one of the critical aspects of Curriculum 2000, was bound to cause a great deal of resistance if left unattended.

REFLECTION AND PROFESSIONAL GROWTH

During the period immediately preceding the inception of Curriculum 2000, the workshops and retreats organised by the Office of the Dean, in collaboration with the Division of Educational Development, taught me how to do the curriculum. I experienced the series of workshops on relevant topics such as outcomes-based education and training, small-group teaching, programme development and writing workbooks as meaningful professional development exercises. Apart from imparting information on the SAQA parameters within which curriculum renewal had to take place, these sessions created opportunities for sharing my ideas on the development of general skills with colleagues. Through critical input from them, I enhanced my own understanding of what it was that Work Group C was supposed to do.

However, at the end of the first year of Curriculum 2000, I was able to say in retrospect that the development team responsible for Module MEA112 had started off with a highly imperfect system, but that we had learned enough to be ready to replace it with something a little less imperfect in 2001. A diary entry on 17 January 2001 bears witness to the resoluteness that was unleashed by the 31% of Afrikaans-speaking students and 21% of English-speaking students who, according to feedback on a question included in a centrally-organised programmatic survey on the overall value of all modules comprising Curriculum 2000, felt that Module MEA112 did not belong in the Learning Programme for Professional Medicine:

> 17 January 2001 – They do not see our module as an essential part of the learning programme – WE SHOULD CHANGE THAT!

ACTION RESEARCH CYCLE TWO, 2001: DOING DIFFERENTLY HAS EVERYTHING TO DO WITH ASSESSMENT

Trying to do things differently is dangerous ground because one's critics might be quick to say "I knew it would not work – let's go back to old things". However, in Cycle Two of the action research project it became clear that through opting for a reflective rather

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than a routine approach to implementing new things, the learning of a small group of committed colleagues indeed contributed to curriculum change.

In contrast to the relatively simple, solid reflective cycle of action research in Cycle One, the action research mode adopted in the second year of Curriculum 2000 consisted of a series of small spirals, reminiscent of Stringer's interacting spiral that includes looking, thinking and acting as a continually recycling set of activities (Stringer 1996, cited in Mills 2000). Action steps and observation of the effect thereof were not carried out in a linear fashion. The capturing and analysis of data, which formed part of the iterative process, were rather kept on track by regular reflection on findings with a view to using these results to inform ongoing data-collection efforts.

Re-defining the problem

One of the key understandings of Cycle One was that the model of skills development the School of Medicine had in place was suffering from various shortcomings, the most serious being the assessment strategy which left students feeling exposed and 'unsafe'. A more creative way of assessing critical outcomes had to be devised.

Two key concerns guided actions and observations in Cycle Two: (1) how to convince students to accept new forms of assessment and (2) how to negotiate collaboration with subject experts with a view to providing students with the opportunity to apply general skills in authentic disciplinary contexts. Since it had been revealed through questionnaire feedback that a substantial number of students still had a reproductive conception of learning, it was anticipated, in following Gibbs (1995), that they would be resistant to alternative approaches such as sharing the responsibility of assessment with lecturers and other authority figures. As far as developing a shared understanding with academic staff was concerned, the prospects were bleak. A discussion with Phase I module leaders on 2 November 2000 led to the following observational notes:

> The use of unconventional forms of assessment to ascertain whether skills and attitudes had been acquired was not even considered by most of the individuals attending the meeting; a certain degree of awareness exists regarding the need for creating authentic disciplinary environments for demonstrating and recording achievement of critical outcomes, but time constraints and lack of knowledge on alternative forms of assessment compel them to cling to conventional forms of assessment.

Action steps to empower staff and students

To promote unconventional assessment practices among students, the MEA112 module development team started the academic year in 2001 by ensuring that they were well informed on what to expect from the new forms of assessment that we planned to use. In keeping with our intentions to establish among students the idea of collaboration

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rather than competition, and to introduce them to the idea that assessment should no longer be seen as the 'business of lecturers' only, the 2001 module guide met the following expectations, enunciated in a journal entry on 23 October 2000 already when the learning material for 2001 had to be finalised:

> Our document on assessment addresses all the flaws identified in 2000 – it provides details on how assessment in MEA112 will be approached; students will know beforehand that assessment will be based on individual and group performance; it explains the rationale behind the different products that will be assessed; a variety of products are included; it explains how the grading of oral and written formats of the project will include components of self-assessment, peer assessment, group assessment; the weight each product will carry towards the module mark is indicated; dates and venues for delivery are indicated.

To empower staff to embed and assess general skills in subject learning content, the MEA112 module team started small, in synergy with the leader of Module MED113 on concepts of health and disease – the only person who had demonstrated a willingness to make use of innovative assessment at the 2 November meeting. Consistent with the commitment made by the School of Medicine to address the needs of the community, Module MED113 deals with the protection and promotion of health, prevention of disease and the prolonging of life through organised efforts of society. One of the major intended outcomes of the module is that students should acquire skills to educate individuals and community groups on the principles and processes of disease prevention and health promotion. The following critical outcomes are implicitly included in this subject-related outcome: the ability to solve problems against the background of social, political and economic realities; to communicate and interact with community members and organisations; and to function effectively within an assigned group.

Drawing on constructivist learning theories claiming that generic skills development is encouraged in authentic real-world environments (Biggs 1999), the leader of Module MED113 collaborated with my office in organising a health Expo. Emphasis was placed on authentic content, social negotiation, reflexivity and tasks demanding the active involvement of students. A conceptual framework (see Table 13.1), adapted from Nightingale, TeWiata, Toohey, Ryan, Hughes and Magin (1996), served to combine our efforts. One of the main features of the learning experience was that students would be involved in assessing the posters, brochures, stalls, and the oral presentations. The idea behind involving students as co-assessors was to give them the message that they could be trusted with the responsibility of assessing their peers' work – an important skill needed for professional competence in their future working lives.

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TABLE 13.1 Conceptual framework used for structuring authentic assessment in Modules MED113 and MEA112

Key questions	Intended outcomes / planned actions
What skills do we want to see in our students at the end of this learning experience?	▪ Critical thinking ▪ Problem solving ▪ Communication ▪ Interaction ▪ Group functioning
What teaching methods are most appropriate to develop these skills?	▪ Preparatory lecture on health promotion and education ▪ Preparatory lecture on principles of communication by means of posters ▪ Clinical learning opportunities in schools, health care agencies and organisations
What kinds of tasks will allow students to demonstrate these skills?	▪ Students to work in groups ▪ Community-based workshops to do a needs analysis at COMMTECH High School and several health care organisations ▪ Project assignment requiring students to communicate the information they have gathered in the form of poster and/or brochure presentations
What kind of authentic assessment situation can be created to make these tasks look like real tasks of the community health promotion?	▪ Organise a health Expo in the Faculty, open to the public ▪ Invite health care workers representing community organisations and schools that students were exposed to in the execution of their projects, to view the formal presentations and participate in the assessment thereof ▪ Organise a session where each group would present a PowerPoint presentation of the process and outcome of their project
What standard of performance should be required?	▪ Negotiate assessment criteria with students

Reflective thoughts upon observing the outcome of the Expo poster project

Feedback on the outcome of the Expo was obtained from a group consisting of 30 health workers and 30 high school pupils, representing the community of Mangaung. The comment of the whole first-year class of 134 students, working in 17 groups, and a panel of six academic staff members was also sought. Data were captured by means of a variety of instruments, including a marking scale, a criteria checklist, a semi-structured questionnaire and an open-ended half-sheet response form.

Responses from all three the target groups were mostly positive. Only the students' comments are singled out for discussion here since the satisfaction of students is regarded as of utmost importance for judging curricular quality. Seemingly, the majority of students derived benefit from the exercise, as is evident from comments such as the following:

> Gained added responsibility by assessing my fellow students.
>
> Criteria used [were] the best thing ever – [they] embraced the whole presentation and made it easy to evaluate.

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On the other hand, students' lack of experience and the fact that some of them had not made a paradigm shift towards active learning became clear:

> Students could have got lower marks because for one group 'excellent' meant 90 per cent, and for another group it meant 80 per cent.
>
> It was a waste of time – we could have studied rather.

Although student feedback should be regarded with reservation, their suggestions for improvement should not be ignored. Therefore the MEA112 team realised that the fairness of the exercise could have been increased by paying attention to the following aspects, as highlighted by the students to be problematic: unequal resources (money/information/support); dissimilarity of topics identified for investigation; untimely negotiation of performance criteria; misunderstanding about criteria and allocation of marks; unethical behaviour of some groups (collusion and retribution); unequal racial composition of community representatives (only black) and panel of staff assessors (predominantly white).

Reflection on these limitations confirmed what Professor Lewis Elton of the University College London had to say at a workshop on quality enhancement on 13 June 2001, namely that one should first consider doing better things before one starts doing things better; that one can do better, only after having learned to do differently. Looking back on the Expo learning experience as one of the 'better' things that were done in Cycle Two, one of the most important lessons that I learned was that consistency of measurement need not be compromised in an authentic context. At the end of the Expo project I felt confident that, apart from the fact that the negotiation of criteria took place at a rather late stage, the assessment design and procedures we had in place did ensure fair assessment to a certain extent: performance criteria and weighting were negotiated with students; students were briefed on how to use the assessment sheet; students had to reach consensus within their groups on the marks they allocated to peers' work to prevent collusion and retribution; students' judgements were used summatively, but carried a weight of 33% only. Furthermore, I found it reassuring to know that students do have the ability to distinguish between work of good and poor quality. In the first instance, it was quite interesting that the list of criteria that students suggested was almost identical to the one that module leaders had compiled in preparation for the negotiation session. To me this was an indication that students had a well-developed sense of what a quality product in that specific context entailed.

Reflecting on the Expo further emphasised the value of embedded skills development and the value of collaboration among academic staff. On the one hand, the MED113 project provided the MEA112 module development team with an authentic context for the assessment of students' communication skills. On the other hand, sheer logistics and the extra workload brought about by the authentic assessment exercise made it impossible for the MED113 module leader to conduct the whole project in isolation. The synergy and cross-fertilisation of ideas that were achieved by working together

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pressed home the idea that a student-centred curriculum 'belongs' to a school and not to individuals within it.

ACTION RESEARCH CYCLE THREE, 2002: DOING DIFFERENT THINGS BETTER

Improvement of practice in Cycle Three implied more of what was done differently in 2001, namely more involvement of students in the actual process of assessment. The starting point was the dichotomy of students' positive experience of real-world conditions in the MED113 Expo project, as opposed to their feelings of insecurity related to the unconventionality of having to act as co-assessors of their peers' work.

Situating the special concern about students as co-assessors

Contemporary life in South Africa, characterised by complex social conditions, places a high premium on the ability of citizens to relate well to others. Add to this the fact that teamwork is the key word in primary health care and hospitals, and it becomes clear why the MEA112 module development team gave prominence to improving the quality of the Expo project. It was reasoned that if students could be 'conscientised' on their shared responsibility for assessing group products and processes, we would be contributing to preparing them for the world of work. In addition, if they could be absolutely clear about what is expected from them as co-assessors, they might start to feel 'safe' with innovative assessment, including peer assessment.

Steps taken to enhance the project-based poster presentations

The MED113 project-based Expo presentations were repeated in April 2002. Table 13.2 gives a summarised view of how the students' concerns were addressed.

TABLE 13.2 Problems identified by students in the 2001 MED113 Expo project and actions taken to address them in 2002

Problem	Actions taken to rectify the situation
Negotiation of assessment criteria when students had already finished posters	▪ Students were involved in the establishment of criteria and performance indicators when they started working on posters ▪ Students' ideas were assembled by means of a structured process, refined and triangulated with them
Misunderstanding about the allocation of marks	▪ Assessment sheet was designed to allow separate assessment of posters, brochures and stalls ▪ Criteria were broken down into performance indicators
Friendship marking	A more sophisticated method of scoring and weighting was designed: ▪ The use of different assessment sheets ensured that only subject experts assessed the factual correctness of the posters ▪ Students' assessments carried a weight of only 5%

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Problem	Actions taken to rectify the situation
Dissimilarity of topics and resources	The target groups of posters aimed at informing the public on health topics and those aimed at giving information on the services rendered by non-governmental organisations were clearly specified
Unequal racial composition of community representatives and panel of staff assessors	▪ Two schools, Navalsig (mixed racial student body) and CommTech (black, English-speaking student body), were invited to attend the exhibition ▪ Three black staff members were included on the staff panel

Observing the outcome of the Expo presentations

Observation in Cycle Three consisted mainly of asking questions. Tangible evidence of improved satisfaction among students was sought by asking them, first, to express their individual feelings about having a say in the criteria and weights that would apply in the assessment of the posters. These comments were captured in the form of a written 'short comment' before the actual presentations. A whole array of words indicating positive feelings were recorded, including: 'motivated', 'appreciated', 'honoured', 'empowered' and 'part of the system'.

A second round of commentary was gathered immediately after the Expo by means of a semi-structured questionnaire. Overall, the comments were very supportive of the modifications that were made to improve the quality of their participation in the assessment process. Typical comments were:

> It was clear that our suggestions for criteria were used.
>
> Seeing that we had decided what was important, we were more motivated to do good work.
>
> Much confusion was eliminated; we knew exactly what was expected.

The involvement of students in the assessment exercise similarly met with overwhelming approval by the panel of staff assessors. Confirmation that they were not merely being subjectively positive was found in the words of a member of the accrediting panel of the South African Health Professions Council who was visiting the School at the time of the Expo:

> After only three months in the new curriculum, first-year students seem to be able to do things that one would normally expect from post-graduate students.

Something that bothered the MEA112 team, however, was the fact that staff members' suggestions for overall improvement focused solely on logistics (Table 13.3).

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TABLE 13.3 Reflective comments on the MED113 poster presentations made by the panel of staff assessors

Aspect commented on	Response
Aspect of the assessment process that made the staff feel extremely positive	▪ The effort, insight, creativity and enthusiasm of the students
Aspects of the assessment procedure they would like to change	▪ More time should be allowed for assessment
Complaints/objections raised by students that they know of	▪ Cursory style of assessment used by staff ▪ Disappointment of not having won
Suggestions on improvement of assessment instrument	▪ Use a simple, more holistic tool ▪ Use fewer criteria ▪ Exchange detailed rubrics for simple descriptive categories such as 'Excellent', 'Good', 'Poor'
Suggestions for overall improvement of the poster presentation event	▪ Improve logistics: more time, more space, another venue, a different arrangement of stalls

Not one of the six respondents who returned completed questionnaires, representing a response rate of 67%, referred to fundamental issues such as the aims and methods of the assessment or the possibility that marks might be skewed because of the inexperience of student assessors. This state of affairs signalled that academic staff were not sufficiently sensitised to the issues involved in authentic assessment to the point of being critical, which works against innovation. The issue was earmarked as something that had to be addressed in future staff development sessions.

RETROSPECTION

Action researchers are sometimes accused of congratulatory self-indulgence. For this reason, showing that one's research has truth value to the point that it can stand up to public scrutiny, is an important aspect of taking stock of an action research journey (McNiff & Whitehead 2006). Table 13.4 shows how trustworthiness was ensured in the research reported in this chapter.

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TABLE 13.4 Adapted version of Guba's criteria for ensuring trustworthiness in qualitative research (Mills 2007)

Criteria of trustworthiness upheld by the researcher	Strategies and methods followed to ensure that criteria of trustworthiness were met
Credibility	▪ Observed students' perceptions of Module MEA112 persistently over a period of three years ▪ Interacted with members of the development team of Module MEA112, lecturers teaching in Phase I of Curriculum 2000, as well as with significant others (phase chairpersons, semester chairpersons, managers, moderator, supervisor and study leaders) ▪ Practised triangulation of assessors, sources of data (students, lecturers, managers), methods (questionnaires, interviews, observations), and different perspectives to interpret data (statistical analysis within a qualitative action research mode of inquiry) ▪ Collected a variety of data items (self-reports, half-sheet responses, questionnaire responses, assessment results) ▪ Corroborated findings, summaries and reports with research participants before sharing information on broader forums such as meetings or workshops
Transferability	▪ Collected detailed descriptive data and compiled detailed descriptions of the context to facilitate comparison with other contexts
Dependability	▪ Compensated for a possible weakness in one data-gathering method by using more than one method, e.g. questionnaires and focus group interviews
Confirmability	▪ Practised triangulation by confirming interpretations with those concerned ▪ Recorded own reflections on what had happened in a particular situation in order to reveal underlying assumptions or biases that led to a specific interpretation or caused the researcher to present findings in a particular way

CONCLUSION

In a context where the implementation of innovative approaches to teaching and learning rests heavily on practitioners, action research is increasingly being recognised as a useful framework within which to develop the competencies and strategies required for tackling complex tasks in the uncertain educational landscape of rapid change. One of the main reasons why this kind of research is gaining ground is that it allows different role players to participate collaboratively in enhancing the delivery of the curriculum to ensure that 'doing differently' does not mean 'doing worse' (McNiff & Whitehead 2009).

The purpose of educational action research, however, is not to replicate the procedure in other similar situations and communities, but to generate full descriptive information defining in detail a situation of curriculum change. Through this chapter I hope to have enriched the thinking of other educators by sharing how I, in collaboration with others, have used action research to probe ideas about the assessment of critical

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outcomes in practice and how we learned from the consequences of our actions. Without fear of contradiction I can say that in the process, my colleagues, our students and I all developed a better understanding of the rationale for changing the medical curriculum. We became owners of the initial plans for change and by sharing our concerns we learned to live with the complexity of real experience when a curriculum needs to change.

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Beylefeld AA. 2005. The challenge of creating knowledge through action research. *South African Journal of Higher Education*, 19, Special Issue:1321-1333.

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ANNEXURE 13A
STEPS FOR TAKING ACTION

Research question directing action in successive cycle	Action to be taken	Person(s) responsible for implementing the action	Other role-players who need to be consulted and/or informed	Person(s) responsible for monitoring action / collecting data	Time frame for implementing the action	Resources that will be needed to implement the action
ROUND 1						
▪ What should be done, within the parameters of the original policy decision to design and implement an 'orientation programme' to address SAQA requirements for general skills development?	▪ Develop a module, including the critical cross-field outcomes listed in SAQA documentation	▪ Development team of Module MEA112	▪ Members of Work Groups A and B ▪ Phase I Committee	▪ Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team	▪ Until November 1999, when the Phase guide and workbooks should be ready for printing	▪ Funding ▪ Technical assistance ▪ Secretarial assistance
ROUND 2						
▪ What should be done, now that we know that the students think that Module MEA112 is not medically oriented enough and is taking up too much of the time they could spend on 'studying'?	▪ Integrate skills development sessions with learning content in core modules. ▪ Establish close collaboration with subject experts to create authentic learning experiences ▪ Design and implement alternative forms of assessment	▪ Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team	▪ Phase Chair ▪ Members of MB ChB I and Module Leaders Committee ▪ Curriculum Committee	▪ Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team ▪ Leaders of modules with whom joint working procedures are negotiated	▪ Until November 2001, when updated Phase guide and workbooks should be ready for printing	▪ Funding ▪ Technical assistance ▪ Secretarial assistance

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ANNEXURE 13A
STEPS FOR TAKING ACTION

Research question directing action in successive cycle	Action to be taken	Person(s) responsible for implementing the action	Other role-players who need to be consulted and/ or informed	Person(s) responsible for monitoring action / collecting data	Time frame for implementing the action	Resources that will be needed to implement the action
ROUND 3						
▪ What should be done now that we have a better understanding of the problems related to integration and alternative forms of assessment (e.g. over-assessment, friendship marking, lack of formative feedback)?	▪ Re-establish links with core modules where joint assessment activities are well accepted ▪ Refine portfolio system ▪ Refine standards, criteria and rubrics for assessment of performance tasks	▪ Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team	▪ Programme Director, New Medical Curriculum 2000 ▪ Phase Chair ▪ Semester I Chair ▪ Members of MB ChB I and module leaders Committee ▪ Curriculum Committee	▪ Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team ▪ Leaders of modules with whom joint working procedures are negotiated	▪ Until November 2002, when updated Phase guide and workbooks should be ready for printing	▪ Funding ▪ Technical assistance ▪ Secretarial assistance

Adapted from Reston (1994), cited in Mills (2000).

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ANNEXURE 13B
MODULE MEA112: GENERAL SKILLS

On the completion of the design of Module MEA112, the module had the following features:

General approach and structure

The module comprised 10 eight-hour sessions offered by a fairly large number of staff members, including academics, administrative staff and people from the public sector. It involved 55 hours of contact time and 25 hours of directed learning over a two-week period. The content of these sessions was delivered by means of various teaching and learning methods such as live lectures, video-taped presentations, group work, hands-on sessions, computer-assisted learning and 'do-it-yourself' assignments (directed learning).

Content

The aim of the module was to:

- familiarise students with the physical environment and administrative procedures of the Faculty of Health Sciences;
- serve as an introduction to the way in which students are expected to function within the new curriculum;
- develop and enhance the general skills and competencies demanded by a resource-based learning approach.

The content of the module covered the following themes:

- Physical arrangement, administration and management of the Faculty of Health Sciences
- Medical education in the Faculty of Health Sciences
- Intercultural etiquette and non-verbal interaction
- Group approach
- Self-regulation: personal, financial and time management
- Discovering computers
- Subject-specific communication
- Introduction to information technology and research
- Finding and evaluating information
- Data-base searching and bibliographic reference technique
- Project presentation

Assessment of the achievement of outcomes was based on class attendance, a group project assessed for content, structure and referencing technique, and an oral presentation assessed by a panel of academic staff members as well as by the students.

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