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# Developing critical understanding by teaching action research to undergraduate psychology students

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Action research assumes the active engagement of the stakeholders, such as the community, in the research, and a multiple-level process of reflection in order to evaluate and monitor the actions taken. This makes action research a suitable methodology to increase the critical understanding of the participants. In this paper we describe the challenge of teaching action research within the context of an undergraduate community health psychology module. The module was designed using principles from transformative learning, critical pedagogy and action learning. The module took place over one semester; and 15 students (13 females, two males) took part in it. We discuss the background to the module development and the alignment of the learning objectives with the teaching and assessment methods, and reflect upon the students' experiences in the module and the learning outcomes. We conclude by addressing the major challenges involved in teaching action research to increase critical understanding: the ability to engage in deep learning of undergraduate psychology students; our role and expectations as tutors on the course; and the current higher education system in which action science yet has to find a place.

**Keywords:** action research; teaching; higher education; reflection; critical understanding

## Introduction

Action research is concerned with working cooperatively with individuals, groups or communities to develop and to promote change; for example, school improvement or the establishment of community health services. There is increasing interest in this form of research, as evidenced by: the launch of several new journals in the past decades, such as *Educational Action Research* and *Action Research*, the publication of a new handbook by Reason and Bradbury (2007), which is now in its second edition, the *Sage Handbook of Educational Action Research* (Noffke and Somekh 2010), and the publication of a plethora of other guidebooks (for example, Greenwood and Levin 2007; Whitehead and McNiff 2006). Although the origins of this approach are often traced to the innovative work by Kurt Lewin in the 1940s and have gathered increasing interest in other social sciences such as anthropology, education and international development, the approach is still relatively under-used in psychology.

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Perhaps not surprisingly it is more popular within community psychology, which has its roots in critical traditions and has a practical focus, compared with most other subdisciplines within psychology (for example, Nelson and Prilleltensky 2004). However, changes in the relationship between society and science call for psychology graduates that are critical reflexive professionals and for the accompanying innovations in curricula. Our assumption is that teaching action research within the psychology curriculum is a way to enhance the critical understanding of psychology students.

In this paper we will report on the findings of a pilot with teaching action research in the BSc Psychology course at Keele University. The module, entitled 'Psychology, Health and Social Action', was designed to introduce students to the principles and practices of community health psychology (Campbell and Murray 2004; Murray et al. 2004), including empowerment and participatory approaches to health (Jacobs 2006). The module used the methodology of action learning, because of its congruence with the principles of action research. Action learning was originally developed by Reg Revans in the late 1930s. It has since then been adopted in management sciences, learning and organisational development and, more recently, in nursing and health disciplines (for example, Boaden 2004; Jacobs 2008; Mead et al. 2006). In recent years, some research has been done in learning and teaching action research in university professional masters programmes, especially in the area of health, education and organisational development (for example, Taylor and Pettit 2007; Sankaran et al. 2007; Kur, DePorres, and Westrup 2008); however, within undergraduate psychology courses it is a neglected area and not much is known about its feasibility and impact on students.

In the next sections we will sketch the theoretical foundations underlying our module concept; describe the module and its evaluation; and then highlight the students' perspectives on the module and its contribution to critical understanding. Although the module was very well received by the students, their critical understanding did not increase substantially. We will discuss possible explanations and recommend changes for the teaching of action research.

## Theoretical background to the module

The critical action learning approach in our module was informed by critical pedagogy and notions of transformative learning. In Mezirow's (1991, 2000) Theory of Transformative Learning, 'meaning' is central as a process of interpreting, making sense of or giving coherence to our experiences. However, much learning takes place non-reflectively: outside awareness or without intentionality. Mezirow draws a distinction between reflective and non-reflective action. Non-reflective action consists of habitual action, thoughtful action and introspection. The lower type of reflective action is subdivided into content and process. The higher level of 'critical reflection' in Mezirow's theory means becoming aware of the schemes and perspectives that we employ to give meaning to new experiences. If meaning perspectives change (i.e. become more inclusive, discriminating and open), then transformative learning takes place. Ultimately, by learning to 'negotiate meanings, purposes, and values critically, reflectively, and rationally instead of passively accepting the social realities defined by others' (Mezirow 2000, 3), transformative learning can lead to emancipation, defined as achieving greater autonomy in thinking.

Here we see an important connection with critical pedagogy, in which 'liberation' and 'empowerment' are the goals of education. Paulo Freire (1971) developed a

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problem-posing approach to education, which aims at both personal and social transformation. C*onscientização* is key in this process, and refers to: 'the process by which students, as empowered subjects, achieve a deepening awareness of the social realities that shape their lives and discover their own capacities to re-create them' (Darder, Baltodano, and Torres 2003, 15). In order to achieve this, he advocated a dialogical approach that involves students' active engagement with each other and with the world. Learning is then a collaborative and problem-posing process of inquiry, which starts from the experiences and knowledge already present within the learners; generates 'vital themes' and questions taken-for-granted assumptions; and raises awareness of new perspectives and actions that contribute to the transformation of oppressing social, professional or political practices. The teacher is a facilitator, and the students are 'critical co-investigators in dialogue with the teacher' (Freire 1971, 68; Shor 1992).

In the dialogical approach many characteristics of a contemporary constructivist approach to learning and teaching are reflected. For example, Biggs (1999), Brookfield (1987) and Brookfield and Preskill (2006) draw attention to activity in learning, to interconnections between existing and new knowledge, and to interaction between learners and teachers, as important contributors to the construction of knowledge. Like Freire, these constructivist educators reject teaching that is 'expository', one-way communication that involves minimal interaction between teacher and students. For example, Biggs proposes a model of teaching as an 'improvised conversation' (1999, 81) in which the teacher has an important facilitating role: asking questions, inviting comments, encouraging ideas, giving feedback, and thinking aloud.

However, a critical pedagogical approach explicitly aims at critical thinking that will challenge the system itself. In the latter, the process of learning involves 'empowerment':

> … the process through which students learn to critically appropriate knowledge existing outside their immediate experience in order to broaden their understanding of themselves, the world, and the possibilities for transforming the taken-for-granted assumptions about the way we live. (McLaren 2003, 89)

Reflection and action in a cyclical process are seen as essential processes to achieve critical understanding. In the literature we find many different models of reflection and learning that incorporate different levels, and focus on reflection as a way to achieve critical understanding. For example, van Maanen (1991), based on Habermas' theory of communicative action, proposes three levels of reflection: technical, practical and critical. The first is concerned with the means to achieve ends with a focus on effectiveness and efficiency and without questioning the goals themselves, which is the case in practical reflection. Critical reflection incorporates a socio-historical and moral analysis of a situation or action. In Mezirow's (1991) Theory of Transformative Learning that we discussed earlier, a distinction is made between content and process reflection, with only the highest level, critical reflection, leading to transformative learning.

Hatton and Smith's (1994) five-level model of reflection, based on Donald Schön's work on the 'reflective practitioner', seemed the most useful as it enabled us to incorporate the central elements of the other models. The first and second levels, technical and descriptive reflection, incorporate a questioning of the skills and methods used (which is comparable with van Maanen's technical reflection), and giving reasons for one's actions taken based on personal judgement or reading of literature.

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This is content reflection according to Mezirow's theory. On the third level, dialogic reflection 'is a form of discourse with one's self, an exploration of possible reasons' and alternative ways of action. We could call this a form of process reflection in Mezirow's model or of practical reflection in van Maanen's model. The fourth level is critical reflection; that is, considering the effects of one's actions and analysing the social, political and cultural forces impacting upon one's actions. On this level, the goals and practices of one's profession are questioned and it includes ethical criteria of how to relate to others, which is in line with 'critical reflection' in Mezirow's and van Maanen's models. The fifth level is the ability to draw upon any form of reflection while acting, called 'reflection-in-action' by Hatton and Smith (1994). We prefer the term 'meta-reflection', as it requires the ability to question one's reflection and learning processes while acting. Besides these five levels of reflection, in accordance with Mezirow's theory we distinguished a zero level of non-reflective action (see Table 1 for a summary of our model).

Our assumption was that in order for critical understanding to develop, reflection processes should exceed level three towards critical and meta-forms of reflection (see also Jacobs 2008). These higher-order forms of reflection are characteristic for emancipatory inquiry (Zuber-Skerritt 2001; following Carr and Kemmis 1985) and level II and III learning (Anderson and Thorpe 2004; following Bateson 1972).

## The module 'Psychology, Health and Social Action'

We wanted to develop a module that would be able to enhance students' critical understanding. Therefore it should call students to act in the 'real world' and encourage higher-order reflection processes, in order to broaden their perspectives and for them to 'learn from doing' and reflecting upon their actions. A critical action learning methodology underpins the principles of transformative learning, constructivism and critical pedagogy, and seemed the best starting point. Centred on a learning project, it brings to life the subject and creates a learning environment that is a collaborative,

Table 1. Levels of reflection and accompanying reflection questions.

| Level | Nature of reflection | Reflection questions |
|---|---|---|
| 5 | Meta-reflection | How do I reflect and learn? Whose voices are included/excluded in the process of knowledge-construction? |
| 4 | Critical reflection | What is this research/activity for? Who benefits? Who does not? What theories and values underlie it? What cultural, social, historical, political forces shape it? |
| 3 | Dialogic reflection (process) | How is my self (biography) involved in my actions? How do I relate to this/others? How does it/do they relate to me? What alternative choices, claims or viewpoints do I have? |
| 2 | Descriptive reflection (content) | What is happening in the project? What choices do I make? Reasons provided often based on personal judgement or on reading of literature. |
| 1 | Technical–methodical reflection (content) | Am I using the right methods and skills to achieve the goals? |
| 0 | Non-reflective action | |

Source: Adapted from Hatton and Smith (1994).

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engaged interplay between teacher and students and between students themselves (McGill and Brockbank 2004; Lizzio and Wilson 2004).

In addition to that, we felt that a more active and reflective approach to learning would contribute to students' empowerment. We hoped that, by relating psychological theory to 'real life problems', the large number of students who seemed alienated from their course would gain a greater awareness of what psychology may achieve and how they can make a difference in the world – however small that may be. Although we realised the challenge of doing this within an undergraduate course, we also felt encouraged by our previous positive experiences in teaching at other universities and evaluations of action learning-based masters courses as reported in the literature (for example, Sankaran et al. 2007; Kur, DePorres, and Westrup 2008).

We developed the module 'Psychology, Health and Social Action', which was a third-year undergraduate elective module for psychology students within the School of Psychology at Keele University. The main objective of the module was to increase students' critical understanding of community-based participatory research to promote health by working and reflecting on a learning project, including one's own role and that of others in the project within the wider social–cultural and political context. The learning project in this module involved the development of a proposal for a community-based health promotion research project, in collaboration with an external community and/or health agency.

### *Learning objectives and activities*

At the end of the module, we wanted students to demonstrate: knowledge and critical understanding of key theoretical and methodological issues in community health psychology; understanding of the practical and ethical issues involved in developing community interventions to promote health; the ability to conduct a literature search and identify literature related to the learning project; the ability to collaborate with fellow students and community or health agencies in developing a research proposal and to reflect on this process; and the ability to present a research proposal to a mixed audience of fellow students, academic and agency staff.

To achieve these objectives, a mix of learning activities was provided: agency and community visits, workshops, lectures, independent study, reflective diaries and discussions using the virtual learning environment (WebCT). The lectures introduced the students to the key concepts and methods in action research and community health psychology. In the workshops, different teaching methods were used to create a climate for discussion and for sharing practical issues involved in conducting participatory health research. These included mini-presentations, small group assignments and video followed by discussions (see Table 2).

The central part of the module was the learning project. Students worked in groups of three or four on a learning project in collaboration with an external agency. They spent time in this agency observing and interviewing, and developing a research proposal. The topic was determined in close collaboration with the agency but the students needed to make sure the topic met the requirements of the module. In most projects, the research proposal was driven by the agency needs – except for two projects in which the students approached an agency with a research idea. Students were expected to post their reflective diaries, incorporating the questions they encountered in working on the project, on the WebCT, which is part of Keele's virtual learning environment.

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Table 2. Learning and teaching methods and topics in the module 'Psychology, Health, and Social Action'.

| Week | Learning and teaching methods | Topic |
|---|---|---|
| 1 | Lecture and workshop | Introduction to community health psychology |
| 2 | Agency visit and reflective diary | – |
| 3 | Lecture and workshop | Health promotion and community empowerment |
| 4 | Agency visit and reflective diary | – |
| 5 | Lecture and video; workshop | Action research and ethnography |
| 6 | Agency visit and reflective diary | – |
| 7 | Lecture and workshop | Evaluation research: participation, narratives and ethics |
| 8 | Agency visit and reflective diary | – |
| 9 | Lecture and workshop | Capita selecta: reflexivity; using the Arts |
| 10 | Agency visit and reflective diary | – |
| 11 | Symposium with student presentations of research proposals | Topics of student projects: health in midlife; mental health; conflict mediation at schools; physical activity; community action; breastfeeding |
| 12 | Handing in research proposal and final reflexive essay | |

Following principles of critical pedagogy, our role in the module was not that of teacher-expert but of teacher-facilitator: we guided a process in which students' knowledge and (reflective) skills were acknowledged, shared and further developed across individuals and projects (McGill and Brockbank 2004). We encouraged the learning project group, like the 'culture circles' used by Paulo Freire, to act as a 'community of practice': a group of people who work together to achieve commonly shared goals and in this process learn individually and collectively (Wenger 1998) and develop critical understanding about the role of psychology in society.

### *Assessment*

The assessment consisted of a formative part (reflective diaries) and summative part (reflective essay, group research proposal, and group presentation of this proposal).

#### *Reflective diaries*

Students kept a reflective diary of their project that consisted of three parts that were linked with each other: a summary and critical reflection on the theory (as introduced in the lecture, the key readings and the additional readings); a reflection on the agency visit, especially the development of the research proposal and the decisions made in the process; and a reflection on the student's personal development in the module. Students posted their reflective diary fortnightly on WebCT; that is, after each cluster of lecture, workshop and agency visit. These postings were formatively assessed by giving individual and collective feedback in the Discussion Tool on WebCT. Also,

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students brought themes of their reflective diaries into the meetings, and shared their insecurity about reflection.

The summative assessment consisted of three parts – a reflective essay, a group proposal and a group presentation – and was aligned with the learning objectives and learning activities (cf. Biggs 1999).

*Reflective essay*

The final 2000-word reflective essay (in alignment with the fortnightly posted reflective diaries) was an individual assessment and took up 50% of the final module mark. In the essay, students could demonstrate Learning Objectives 1, 2 and 4. They were free to choose any form they liked for the essay; traditional, creative (using images and pictures), personal or even 'postmodern', as in 'patchwork texts' (Brunsden 2007). The use of reflective diaries and essays is in line with the narrative tradition in professional learning and action research, in which story-telling and the (collective) analysis of stories are means to interactive knowledge construction, learning and transformation in practice (see, for example, Koch et al. 2005; Labonte, Feather, and Hills 1999; Clandinin and Connelly 2000; Bolton 2001; Moon 1999).

*Group research proposal*

The 2500-word research proposal was a group assessment (40% of the module mark) and aligned with Learning Objectives 1, 2, 3 and 4. Students worked in small groups to develop a research proposal in close collaboration with a professional or community agency that fulfilled the standard criteria of research proposals but included explicit attention to the participation of stakeholders and community-members as co-researchers.

*Group presentation of research proposal*

The third part of the summative assessment was a 20-minute presentation and discussion of the research proposal in a symposium for students, staff, agency and community members. This was a group assessment (10% of the module mark) and allowed students to demonstrate their presentation skills (Learning Objective 5) for a mixed audience of fellow students, academic and agency staff. In their presentation, students were asked to reflect on the process of collaboration and learning on the module. Examples of presentation topics are shown in Box 1.

Box 1. Examples of project topics in the module.

- Bridging the gap. Photo voice stories of clients at an addiction centre.
- 'What's the point? It's crap round 'ere anyway': The role of collaborative video research in community understanding.
- Mediation within schools: The impact upon self-esteem and well-being.
- The influence of healthcare professional support on the incidence and duration of breastfeeding.
- The effect of an exercise intervention on gym members' experience of health.
- Pre placement support in a centre for older people.

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**The module evaluation**

We used a case-study approach to evaluate the module as this is appropriate to gain an in-depth understanding of a phenomenon as a whole and within its context (Yin 1994; Merriam 1997). We collected different kinds of material to make sense of the students' experiences and their learning outcomes. First of all we constructed an end-of-module evaluation questionnaire that consisted of statements about module design, the tutors, the lectures, workshops, readings, the group project, and the learning outcomes, to which the students could answer their level of agreement on a five-point Likert scale ranging from 'strongly agree' to 'strongly disagree'. Examples are: 'The aims and objectives were clear', 'The module stimulated me practically and personally', 'The workshops gave adequate opportunity for discussion', and 'This module improved my critical thinking skills'.

Besides the questionnaires, we asked the students' permission to use: their reflective diaries and essays, group proposals and presentations; their personal and email feedback during the module; personal notes; and conversations and observations in the module, as data to make sense of their learning experience and outcomes. This happened only after the module marking had finished, and all students gave their (verbal) consent after being informed that all information would be treated confidentially and presented anonymously.

In the analysis of the narrative material, we used an approach in which a first rough inductive analysis was confronted with theoretical insights on reflection, critical understanding and transformative learning, as presented in the Introduction. We looked for the main story lines or themes and how these developed, as well as possible tensions (Clandinin and Connelly 2000). In this way, two themes were constructed from the accounts of the students that show the process they went through: 'The jump into the unknown' and 'Regaining control'. Besides this, we evaluated the main learning objective (i.e. critical understanding) by using the students' narrative accounts, as well as the questionnaires and assignments.

**The jump into the unknown**

The first postings of reflective diaries on WebCT in the second week of the module showed that the students felt 'out of their depth' and apprehensive about the module. An important factor in this was the unfamiliar approach to teaching and learning in the module. The exact nature of the research proposal was not defined but would be established in collaboration with the agency. In addition, the students could not rely on books and academic knowledge, but needed communication and collaboration, and critical reflection skills to succeed in this module. They were confused as to what was expected of them and several students mentioned that it 'was quite daunting', which is illustrated in the following quote from a reflective diary:

> I remember feeling a mixture of excitement and anxiety when I was told that we would be in charge of conducting a research proposal. Having studied psychology for five years I had got used to following what was written in books and journals. My initial reaction to having to make contact with agencies was that I was out of my depth. (S)

These first reflections of the students in turn caused anxiety within us as tutors. We asked ourselves whether this had been a good idea after all and how to proceed. Strong negative emotions such as anxiety, caused by a fear-inducing learning and teaching

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approach, can block deep learning (Biggs 1999) and we were afraid that this was going to happen with the students in the module. Mezirow's theory explains this by referring to our frames of reference that are the anchors of our values and sense of self. If these frames are threatened by new models or insights, we ourselves feel threatened and therefore we may dismiss these new viewpoints as 'distorting, ill intentioned, or crazy' (Mezirow 2000, 18).

Not surprisingly, then, resistance to the open and unstructured approach in action research is widely reported in the literature (Taylor and Pettit 2007). As Sankaran et al. state: 'The knowledge and skills necessary to undertake AR are easily learned. But there is an attitudinal component, a perspective about how we understand the world, which is not so easily acquired' (2007, 296). In addition, Vince (1996, 121, quoted in Rigg and Trehan 2004) points to the anxiety that is caused by new ways of learning, especially those that place ownership of the learning process with the student, which is the case in action learning and action research: 'Approaches to learning that break free of dependency on the teacher, and place emphasis on the responsibilities of the learner, always create anxiety'.

From these perspectives, the strong emotions of the students and our emotions as well could be explained by an investment in certain frameworks and ways of learning, which were threatened by the module. Not only for the students was it a challenging experience, but for us as well. However, anxiety and discomfort can also be seen as indicators that transformative learning is taking place (Mezirow 2000), and this understanding helped us to contain their (and our) anxiety and prevent a 'fight or flight' response.

**Regaining confidence**

Our response to the students' confusion and anxiety was to give extra support in so-called 'consultation meetings' with each of the groups; taking their concerns and feelings seriously but at the same time stressing our belief in their capacities to conduct the project. In the plenary meetings we gave time to feed back feelings and questions about the module, and the reflective diaries turned out to be a perfect medium for students to work off steam about the module:

> I was worried that because this is such a new topic for me I would have nothing to really say to the workers of the agency, or be able to contribute to the course so far. After speaking with Gaby, one of the module leaders, some of my concerns were erased and I was able to start to consider how I and the other members of my group were going to complete the relevant expectations of the research proposal. (F)

> Working within a group has helped relieve some of the stress as I am able to discuss concerns and ideas. (S)

After a couple of weeks the students started to feel more confident and to enjoy the module. The support of and dialogue with the tutors and the peer group were crucial in this, which is also reported elsewhere (for example, Kur, DePorres, and Westrup 2008). The reflective diaries revealed that the students found it difficult to deal with the initial feeling of not being in control but that in the course of the module, and with the support of peers and tutors, they regained direction:

> Now that I know what direction our research ideas are going in and have arranged a visit I feel a lot more in control and can focus my work. I think because I like to be in control

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> of situations and know exactly what I am doing I found initial stages of waiting for responses and so on particularly difficult. (L)

The end of the module evaluation showed that the students saw this module as a very valuable learning experience. In their verbal feedback in the last meeting they stressed the experience of doing something new and receiving new perspectives from doing this:

> I learnt a lot from the module. We have done things we had never done before. This made me think.

The questionnaire showed that almost all students felt that the module stimulated them intellectually, practically and personally, and that the tutors were friendly and approachable. The lectures and workshops were seen as related to the objectives of the course; useful for developing the group project; and providing opportunity for discussion. Students felt they learnt a lot from working on the group project and regarded the reflective postings as helpful in finding a focus. Interestingly, they also indicated that the learning outcomes had been achieved, including the enhancement of critical thinking skills.

**Critical understanding**

The main objective of the module was to increase students' critical understanding of community-based participatory research to promote health. Critical understanding – like reflection – is a difficult concept with a wide variety of meanings in higher education. We defined critical understanding as the outcome of higher-order reflective processes that lead to a change in meaning perspectives (transformative learning). In other words, our ambition was to increase students' reflective abilities beyond the technical, descriptive and dialogic levels of reflection towards critical and maybe even meta-reflection (see Table 1). Did we succeed in this?

Overall, the level of reflection at the start of the module was rather low. In their reflective diaries, students showed their abilities to select and summarise literature and to structure their thoughts, but they were having difficulty connecting with the literature, let alone reflecting on their own and others' involvement in the project and relating the project to broader social and political issues. Noticing their struggles and hearing their questions about reflection, we used examples from their own writing and discussed these in order to help students to recognise reflection on different levels (see Table 1) and further develop it. The students found this very helpful because it raised their awareness of their reflective skills. The group work and sharing of experiences and perspectives helped them to achieve dialogical reflection (level three) and learn from each other's differences and commonalities in perspectives, attitudes and actions in the project. By introducing critical theoretical perspectives from community psychology, we also hoped to offer them a framework to question the goals and activities in their projects.

In the final reflective essay, the majority of the students, however, still did not exceed level three, which means they did not manage to think outside the disciplinary framework and skills they had learned so far, and quite a few had problems with dialogic reflection, as psychology is rooted in a positivist tradition in which including the 'self' and reflecting on feelings, values and assumptions in research are regarded as 'unscientific' (cf. Greenwood 2007).

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But there were a few exceptions. One student wrote an excellent reflection on 'reflexivity', and showed the ability to transgress the boundary of the discipline (level five). Another student's energy was raised by the project and she decided to do her final-year project on the same subject. She had become bored by the course so far ('it is more of the same') and wanted to make a difference with her project in the world (level four). And two students chose – inspired by the module – an action research project as their dissertation topic, in which they developed community activities to create empathy with marginalised groups in society: people with mental illness; and refugees and immigrants (level four).

## Conclusion and discussion

The module 'Psychology, Health, and Social Action' received highly positive evaluations from the students, and students reported that the module had contributed to the development of critical thinking skills. However, our case-study approach highlighted that the learning objective, to increase critical understanding, was only achieved by a minority of the students. In this last section we will discuss the strengths and limitations of the evaluation approach, and some challenges in teaching action research in undergraduate psychology, that put these findings in different perspectives and thereby provide possible avenues for future modules.

### *Strengths and limitations of the case-study approach*

The strengths of the case-study approach that we used included the monitoring of the learning process, which allowed for students to have an active role as co-constructors of the module, since we could immediately respond to possible obstacles. Another important but unexpected contribution of this method was that it gave an in-depth insight into the emotional dimension of learning over time, a dimension that for a while has been neglected in the literature, but in the past decade has attracted interest (see, for example, Ingleton 1999; Hunt and West 2006; Illerus 2003; Bresler 2004). And last, but not least, if we had used only student questionnaires (the standard form of evaluation at this university) to receive information about the module, we would have failed to identify the discrepancy between students' responses on the questionnaires and their reflective achievements in the module. By collecting data from all parties involved using different sources (verbal and written feedback, questionnaires, assignments) and examining them within a wider context, a much richer picture of the module was acquired and questions were raised regarding our expectations of and role in the learning on the module (we will come back to that later on in this section).

However, we need to be careful with interpreting the findings, since the evaluation of critical understanding was based on a notion we developed from levels of reflection, whereas students may have had their own concepts of 'critical understanding' from which they responded to the questionnaire. It may also have been the case that there is still a gap between 'critical thinking' and 'critical writing', meaning that the assessment methods were all based on 'representing' instead of 'performing' insights (cf. Biggs 1999, 200). And although the assessment of reflection was done by the two of us, which increased the reliability, it is hard to tell whether the outcomes in terms of critical understanding were disappointing as we do not (yet) know what students at this level may achieve.

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In the next sections we will expand on the interpretation of the findings by discussing three challenges in teaching action research: the students, the tutors (ourselves) and the system in their interrelationships.

### *Student characteristics*

Cognitive theories of learning stress the importance of maturity in learning, arguing that most undergraduate students have not reached their full capacity for the processes involved in deep learning and critical reflection; therefore some of the functioning implied in action learning and action research may only be achieved at postgraduate level or by mature students in undergraduate degrees with professional experience. Studies have pointed to the surface learning that is common among undergraduate students to support this view. For example, Usher (1985, quoted in Moon 2000, 130) expressed the experience of essays in psychology that were 'depersonalized, abstract and "out there" rather than "in here" and connected to students' lives and meanings'. Other studies have shown that strategic learning appears to play a stronger role in higher education than deep learning (Kneale 1997). In the light of this, some authors have argued for a conservative approach, in which students first have to learn the body of knowledge and skills of the discipline or profession before they should be encouraged to critically reflect on them (for example, Copeland, Birmingham, and Lewin 1993, quoted in Moon 2000, 73).

However, we would not want to conclude yet that our learning objectives were too ambitious. From a critical pedagogical perspective, undergraduate students are not 'empty vessels' that should be filled with knowledge and skills, before they are able to critically reflect. Instead, students should be given the opportunity to integrate knowledge and skills with their embodied understanding of practice (Dall'Alba and Sandberg 2006). Moreover, learning and development do not take place in a vacuum but are relational and contextual processes (Brockbank and McGill 1998) as the anxiety and role of support in this pilot-module showed; therefore we should also look at the teaching and institutional culture that influences learning.

### *The teacher as a facilitator and guide*

Several authors have argued that learning approaches are not fixed with certain ages or personalities, but that they emerge in relation to the teaching and assessment approach and the institutional culture (Biggs 1999). For example, Hatton and Smith (1994) observed that students felt that the expectations of essay writing established within the academic context inhibited their ability and willingness to reflect, since the traditional essay is in many ways the antithesis of the personal, exploratory, and open style of a reflective essay. This may have impacted upon our module as well, as both students and tutors had never before experimented with reflective essays and unknowingly may have felt apprehensive about it.

Similarly, we had yet to 'own' our role as tutors on the course. In action learning the teacher does not take on an expert role, but is a facilitator and guide who has gone through similar processes and can create the conditions for learning, but not the learning itself. Students' ownership of knowledge is central and (inter)activity is a way to promote this ownership. Donald Schön (1987) has described a reflective practicum as a way of learning in which the teacher can only be present from the sideline:

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> Any reflective practicum [requires] that they plunge into the doing, and try to educate themselves before they know what it is they're trying to learn. The teachers cannot tell them. The teachers can say things to them but they cannot understand what's meant at that point. (Schön, 1987, 1)

However, in teaching within a higher education context, we experienced that there is always the trap of falling back on one-way communication as a way to deal with discomfort in unfamiliar situations (for an explanation of the power of defensive routines, see also Jacobs 2010). Indeed, our teaching did not fully live up to the ideal of a dialogical learning environment. An important factor in this was 'the force of a knowledge base': the amount of material we wanted to cover within 12 weeks' time because the students did not have any prior knowledge in this area. However, as Gardner (1993, cited in Biggs 1999, 44) states: 'The greatest enemy to understanding is coverage'; and according to Moon, 'Time allocated to thinking or reflection is easily lost when there is active teaching competing with it' (2000, 182). Because the meetings were taking place fortnightly, coaching on practical issues in the projects was often given precedence over dialogue on the students' experiences and discussion of literature in relation to the projects.

To increase the space for dialogue and reflection we therefore could easily propose weekly instead of fortnightly meetings. Also other measures could be taken, such as more interactive methods that will help students to relate to the theory and project and critically reflect on them. Examples are: the use of a video as a 'grabber' or as an entrance to discussion; brainstorm exercises; small group work; peer teaching; and linking theory with examples from their learning projects. Instead of the 'open' fortnightly reflective posting, we could also consider introducing a 'patchwork assignment' (Brunsden 2007; see also Moon 2000 for different exercises for use in reflective journals) with assignments for the different levels of reflection, thereby providing a safe and supportive environment in which to practice reflection without yet any consequences for the module mark. A danger we are aware of, however, is that too much structure can lead to a 'recipe-approach' to reflection, and that we are doing more of the same, based on our need to feel in control, while still not providing the active learning environment and dialogical and collaborative learning process we are looking for. This is part of the paradox of empowerment in action research and action learning; that as tutors we try to steer the learning of our students in a certain direction, thereby actually hindering the development of critical thinking skills and empowerment. Teaching action research therefore requires a 'tricky balance' between structure and openness in order to increase critical understanding (Taylor and Pettit 2007, 243).

To further the empowerment of students in doing action research, peer assessment or collaborative assessment of reflective skills would be a good alternative, as this has been shown to highly contribute to students' learning (Moon 2000). In this way, students could actually have a voice in developing a model of reflection and criteria for assessment instead of our wanting them to learn according to our categories. Linked to this is the promotion of more active engagement with readings on the module, for example by asking students to bring in an article that appeals to them, as this will provide the necessary framework for reflection on higher levels to take place. In addition, inquiry-based teaching methods, such as debates, that start from the lived experience and interests of the students (Warhurst 2001; Stafford 2008), could be included as well.

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### *The institutional context*

Besides student and teaching characteristics, a related explanation for the challenges that our students and we ourselves experienced with critical reflection can be found in the institutional context. Action research is based upon the principle of active engagement of the participants; in teaching action research, the challenge is to engage the learners in the process. However, in undergraduate psychology, students are not used to being active participants in their learning and tutors are not used to actively involving their students and becoming co-learners in a collaborative and dialogic process.

Moreover, in higher education, many studies are instrumental in character, which means that the aim is to help students fit in with the requirements of a profession or discipline (e.g. the requirements of the British Psychological Society for psychology students) instead of questioning its principles, goals and methods (Barnett 1997). So neither students nor tutors are used to exceeding level two (see Table 1), the technical–methodical and descriptive reflection. In addition to that, the current higher education system is based on receiving credits for individual modules, and cross-module or cross-disciplinary reflection is not encouraged. As Barnett reports:

> The rewards are for assimilating this module and for banking its associated credit. Let's get this module out of the way and go on to the next one. Why pause to work out their possible interconnections and even their contradictions? (1997, 85)

An often-heard complaint is that there is no time to let the insights gained in a module sink in, let alone to make connections with other modules. More importantly, doing this is risky for students as it can be 'marked down' for not addressing the theory presented in the module (especially with markers that are not interdisciplinarily competent). In other words, building critical understanding not only requires time, support and experimentation with teaching methods and techniques, but also requires courage from both students and tutors; they have to go against the grain!

## A way forward?

Teaching action research means teaching an epistemology in which knowledge is situated, plural and contested; and a methodology that makes use of a variety of methods and that is reflexive in nature. Moreover, it requires the development of long-term collaborations between universities and external agencies and communities. Agencies and communities are not objects of study, they are stakeholders and participants and their contribution to the learning of students should be acknowledged; and at the same time they will learn from the reflective work done on the course. Greenwood (2007) has pointed out that action research has yet to develop ways to transform the university and its relationship to the outside world, and that individual innovative modules alone will not bring this change. We do agree with the first part: teaching and learning action research requires a different model of science, not the classical model in which science is separated from society and politics, and in which knowledge is separated from values. Nowotny, Gibbons, and Scott (2001) have introduced the concept of the 'Agora' to conceptualise the changing function of science in society and the changing views on knowledge production. The Agora originates from classical Greek history, describing the town square where people met to discuss, debate or simply exchange points of view. Translated to the world of science, the Agora stresses the importance of contextualisation: the social relationships, dialogues and processes taking place

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between experts and lay people, and between scientific knowledge claims and societal interests; actually, it acknowledges the existence of a multitude of interests and participants in the development of knowledge and the constitution of what knowledge entails. Or in the words of Barré, Agora processes: 'involve bottom-up approaches, which can be described as learning processes involving citizens, stakeholders, scientists and a variety of actors having a diversity of stakes and values' (2001, 16).

The more important question, then, is how to bring about this transformation? We do think that individual modules and teaching staff can make a change in connecting with stakeholders from inside and outside the university, as is also reported in the literature (Kur, DePorres, and Westrup 2008; Sankaran et al. 2007). The challenge for academics is how to deal with the 'context speaking back' (Nowotny, Gibbons, and Scott 2001, 207) in doing and teaching action research. In their 'Manifesto of Hope', Nixon et al. discuss an 'emergent' professionalism:

> … that seeks to reinforce the primacy of the relation between professionals and their publics, and the need to ground that relation in an ongoing dialogue regarding the ends and purposes of learning […] whose sense of professional identity is derived from their capacity to listen to, learn from, and move forward with the communities they serve. (2001, 234)

In order to let this professionalism grow, it is not only our students who need courage; we as tutors need the courage to teach in a way whereby different voices can get heard. If critical teaching practices want to have an effect, they must connect with a wider body of academics, agencies and communities inside and outside the institution. Within the discipline of psychology, the tide seems to be turning, with the increasing recognition of qualitative and action research in the teaching of psychology; the development of work placements in undergraduate courses; and experiments with problem-based and inquiry-based approaches to teaching and learning (Norton 2002; Stafford 2008). Although we realise that these developments are driven by the 'marketisation' of higher education, they do nevertheless offer opportunities for the development of students as critical professionals and citizens of the future because they require students to develop frameworks that are inclusive, open to other viewpoints, critical to one's own assumptions, dynamic, and capable to incorporate new experiences. These are essential 'employability skills' for democratic citizenship in a fast-changing and highly complex global society.

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