CHAPTER ELEVEN

Action Research

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Action research (AR) is gaining acceptance in applied linguistics studies as an empirical approach adaptable to higher degree and other research studies, as well as to engagement of practitioners in their personal professional growth through reflective practice and local practical inquiry. I describe the major philosophical and paradigmatic assumptions of AR, its origins and essential processes. Issues of validity and value, which remain contentious in AR, are then raised. I also outline briefly the main research techniques and tools, after which key ethical considerations are briefly discussed. Following the pattern of other contributions to this volume, the chapter ends with an illustrative example.

Underlying assumptions and methodology

What is action research?

AR is the superordinate term for a set of approaches to research which, at the same time, systematically investigate a given social situation and promote democratic change and collaborative participation. *Participatory action research* (PAR), *critical action research* (CAR), *action learning*, *participant inquiry*, *practitioner inquiry* and *cooperative inquiry* are all terms broadly underpinned by the assumptions and approaches embodied in AR. The common features they share are to: (a) undertake research to bring about positive change and improvement in the participants' social situation; (b) generate theoretical as well as practical knowledge about the situation; (c) enhance collegiality, collaboration and involvement of participants who are actors in the situation and most likely to be

affected by changes; and (d) establish an attitudinal stance of continual change, self-development and growth. Those engaged in AR experience self-reflection on their behaviour, actions and interactions with others; deliberate interventions to question and enhance current practices; adaptation of research processes and methods to address issues that emerge directly; and unpredictability and openness to changes in research goals and questions as knowledge of the social situation expands and deepens. By way of summary:

> Action research involves a self-reflective, systematic and critical approach to enquiry by participants who are at the same time members of the research community. The aim is to identify problematic situations or issues considered by the participants to be worthy of investigation in order to bring about critically informed changes in practice. (Burns, cited in Cornwell 1999, p. 5)

Typically, the situations that participants wish to investigate are those they perceive to be 'problematic'. Rather than suggesting that the participants or their behaviours are the 'problems', the term *problematic* reflects a desire on the part of participants to 'problematize', that is question, clarify, understand and give meaning to the current situation. The impetus for the research is a perceived gap between what actually exists and what participants desire to see exist. In this sense, action researchers are change agents aiming 'to take a stand for a preferred future' (Atiti 2008) and interested in resolving, reformulating or refining dilemmas, predicaments or puzzles in their daily lives through systematic planning, data-gathering, reflection and further informed action.

In its historical applications within educational contexts, AR is typically depicted as three broad movements over the past sixty years (see Burns 2005, 2011 for detailed discussion): *technical-scientific* (a technically motivated, step-wise activity seeking basic improvements to practice), *practical-deliberative* (a solution-oriented approach to morally problematic situations) and *critical- emancipatory* (an empowering approach embedded in critical theory and addressing broader socially constituted educational structures at the local level). In 1993, Crookes argued that in language education contexts, critical-emancipatory approaches were uncommon and it could be said that this is still the case (although see Denos et al. 2009 for a recent example).

Processes in action research

In contrast to research approaches which follow more predictable, well-established procedures, AR is characterized by dynamic movement, flexibility, interchangeability and reiteration. Broad research phases are, however, discernible. Despite the large number of (contested) models in educational AR (Zuber-Skerritt, 1990, calculates that there

are at least thirty), typical representations show spirals or cycles of (i) planning, (ii) action, (iii) observation and (iv) reflection (cf. Kemmis & McTaggart 1988). The spirals are interwoven, fluid and repeated throughout the investigation; thus, a researcher conducting AR should be prepared for unanticipated variations and reiterations in the process. For example, Burns (1999, p. 35) and the Australian practitioners she collaborated with experienced a 'series of interrelated experiences' involving numerous dynamic phases (Table 11.1).

Table 11.1 Interrelated experiences in action research phases

Phase	Focus of phase
Exploring	Identifying generalized areas for investigation
Identifying	Undertaking fact-finding to refine ideas
Planning	Developing a viable plan of action
Collecting data	Selecting and enacting initial data-gathering techniques
Analysing/reflecting	Simultaneously scrutinizing and reflecting on emerging data
'Hypothesising'/ speculating	Developing initial predictions/explanations based on data
Intervening	Deliberately changing practices in response to predictions
Observing	Observing and evaluating outcomes of interventions
Reporting	Articulating processes formatively or summatively to others
Writing	Summarizing and disseminating written research accounts
Presenting	Summarizing and disseminating oral research accounts

One challenge for novice action researchers is to distinguish how AR differs from everyday educational practice. Everyday *action* and investigative processes of *research* are brought together in AR; the researcher must plan, act, observe and reflect 'more carefully, more systematically and more rigorously than one usually does in everyday life; and [to] use the relationships between these moments in the process as a source of both improvement and knowledge' (Kemmis & McTaggart 1988, p. 10).

In AR, the action in and on the social situation is deliberately interventionist; researchers are simultaneously critical participants *in* the action and researchers *of* the action. AR is essentially an exploratory and decision-generating process invoking key questions, actions and challenges. Table 11.2 presents the major phases and processes and suggests the kinds of actions and challenges that can arise.

Table 11.2 Typology of phases and processes in action research

Broad phases of AR	Key questions	Key actions	Key challenges
Plan	• What problematic areas for investigation and change can be identified in this social situation? • What changes to current practice are anticipated? • What outcomes are desired? • Who is involved in this situation? • What resources are needed?	• Develop statements /reflections/ questions • Identify, collaborate and dialogue with co-participants (colleagues, administrators, parents, students) • Outline initial action and research designs and processes • Identify scope, timing, resources	• Articulating implicit and explicit cultural and professional assumptions about status quo • Interrogating relationship of professional experience to research issues • Scanning political, social and educational constraints
Act	• What strategies and actions should be put in place? • What is distinctive in this action/ how will it lead to change? • What ethical issues are involved? • What evidence is emerging for renewed action?	• Initiate actions over critically selected time period • Observe deliberately, consciously and nonjudgmentally • Collaborate with co-participants • Adjust actions on basis of emerging observations	• Avoiding personal bias and interrogating preferred actions • Questioning preconceptions about outcomes • Maintaining openness to unpredictable or unwelcome outcomes
Observe	• What evidence about actions is required? • What types of data-gathering techniques should be used?	• Evaluate the nature of evidence required to document actions systematically • Identify/adapt/develop relevant data-collection tools and techniques	• Connecting data sources to research purpose and action • Selecting/reselecting data-collection tools • Ensuring triangulation of data techniques

(*continued*)

Broad phases of AR	Key questions	Key actions	Key challenges
	• What additional forms of data are needed? • What kinds of interim analyses are possible?	• Clarify range of perspectives required for adequate coverage • Identify roles of co-participants in data gathering	• Locating resources/materials required for data collection • Reviewing/readjusting actions on the basis of evidence • Maintaining rigour and thoroughness of procedures
Reflection	• What evidence is emerging and/or re-merging from systematic observation? • What intended and unintended outcomes are identifiable as a consequence of the intervention? • What reformulations of the problem are required? • What ethical issues are arising from the research? • What balances in judgement need to be achieved?	• Adopt a formative approach to the emergence of findings • Maintain openness to possible revisions, redirections and new problems /questions • Interrogate personal and profession preconceptions/ assumptions • Ensure equitable and just consequences for all participants	• Rechecking and cross-checking evidence • Revising focus and aims of intervention and observation based on emerging evidence • Identifying and challenging preconceptions/assumptions • Informing research participants about progress and purpose • Involving participants in cross-checking judgements about evidence • Analysing evidence impartially • Maintaining awareness of the intersubjective nature of personal involvement

Validity and trustworthiness

Validity is a contested notion in AR. Criticisms about quality and validity have long been levelled against educational AR in relation to: methodological limitations (Ellis 2010) such as its lack of scientific rigour, replicability and generalizability; the tentativeness and unpredictability of the initial design and therefore its inability to set out validity measures in advance; the localized and therefore unreplicable nature of AR; the capacity of practitioners to design and conduct robust research (e.g. Jarvis 1983; Dörnyei 2007); and the level of rigour in research design (Brumfit & Mitchell 1989; Mackey & Gass 2005) and data analysis (Elliott & Sarland 1995; Winter 1987).

However, proponents argue that these criticisms misconstrue the nature and purpose of AR. Like the process of AR itself, validity in AR is highly dynamic and subject to variation, determined by the ongoing and changing aims of the research. Because of the complexity and contentions surrounding the term 'validity', as well as its strong associations with positivist and quantitative-experimental paradigms, AR commentators tend to avoid using it, instead preferring terms such as 'trustworthiness' (Zeichner & Noffke 2001), 'worthwhileness' (Bradbury & Reason 2001) or 'credibility' (Greenwood & Levin 2007). Trustworthiness refers to whether the data analyses, reports and interpretations constitute honest and authentic reconstruction of the research and of the knowledge that emerged in the social environment, while the value accruing to participants in undertaking the research contributes to its worthwhileness. Credibility relates to 'the arguments and the processes necessary for having someone trust research results' (Greenwood & Levin 2007, p. 67); internal credibility means that knowledge created is meaningful to the participants generating it, while external credibility is to do with convincing those uninvolved in the research that the outcomes are believable.

Fundamental to reconceptualizing validity in AR is the challenge of how to make judgements about the quality of the research. Altrichter et al. (1993, pp. 74–81) argue that four key questions should be considered when formulating criteria to evaluate AR quality:

- Have the understandings gained from research been cross-checked against the perspectives of all those concerned and/or against other researchers?
- Have the understandings gained from research been tested through practical action?
- Are the research aims compatible with both educational aims and democratic human values?
- Are the research design and data-collection methods compatible with the demands of teaching?

Taking these questions in turn, the following measures can enhance trustworthiness in AR (see Altrichter et al. 1993, pp. 74–81; Burns 1999, pp. 163–166).

Cross-checking perspectives

In line with qualitative research procedures more generally, this criterion concerns repetition and comparison of data in order to uncover discrepancies or alternative perspectives, typically sourced through:

Triangulation, a term derived from navigation where different bearings are taken to give accurate positioning on an object. In AR, triangulation means using more than one data-collection method (e.g. observations, followed by interviews, or surveys complemented by observations and focus groups) or making comparisons across different types of data (e.g. quantitative analyses compared with qualitative survey responses). Other procedures include investigator (using different researchers), theory (using multiple theoretical approaches) and environmental (using different locations) triangulation. By using different perspective sources, confidence that findings are not simply the result of using a particular method is increased.

Member-checks which involve taking the data to various participants and/or stakeholders for verification of the accuracy of the findings. The researcher's interpretations are cross-checked by those who supplied the data or by other 'members' of the social context in a position to provide views (e.g. principals, administrators, close colleagues). In some cases, *peer comparison*, using the perspectives of those relatively uninvolved, is also sought to test out the extent of the account's credibility (e.g. colleagues or administrators in other educational contexts, or parents).

Perspectives comparison which involves testing findings against research in comparable situations. Sources come from the literature, other action research accounts, presentations at professional workshops and conferences, or the researcher's deepening reflections. Failure to find rival explanations that show alternative data explanations, or *negative cases*, that confirm that patterns and trends identified in the data are accurate increases confidence in interpretations.

Cyclical iteration where the trustworthiness of findings and interpretations are compared with and tested against previous iterations of the AR cycle in order to build on previous evidence, expand the scope, purpose and central questions of the study, further triangulate the data and guard against researcher bias.

Testing through practical application

AR involves not just practical application but the development of empirical and theoretical insights about the social situation under investigation. Given the dynamic interaction between action and reflection, the strength of the theories that emerge rests on their ability to generate improvement in practice. Theory-testing is related to how the researcher demonstrates practical application for improvement, and critical reflection on the capacity

of the intervention strategies to bring about changes and developments. This does not imply that intervention strategies will show immediate and clear-cut improvements in practice; but it does mean that the purpose and forward movement of the AR process is consistently focused on enhancing practical conditions within the social situation The knowledge generated is based not on received wisdom or 'grand theory', but on 'experiential knowing' (Heron 1996).

Compatibility with educational aims and democratic values

This criterion relates to ethical considerations (see below). As mentioned, AR is deliberatively interventionist, aimed at disturbing and unsettling the status quo. Consequently, participants may find themselves confronting surprising or even unpalatable realities or changing things in unanticipated ways. Despite disturbances to accepted practice, it is important that essential *educational* aims in the context are kept in mind. Also, methods should be compatible with research aims; if, for example, the aim is to work with novice teacher colleagues to understand and improve early teaching experiences, interviewing experienced colleagues about 'problems' in supporting novices is counterproductive to fostering good collegial relationships. Similarly, sharing these data with novices and asking for perspectives on their colleagues' views is only likely to increase feelings of alienation. AR strives to enhance cooperative participant relationships, and so showing how these relationships were treated within the research is relevant. Indicating explicitly how ethical principles were achieved and how participants' roles and these relationships were (re)negotiated through different research cycles is essential to ensuring research quality.

Compatibility with teaching demands

AR practitioners must be simultaneously researchers and actors in the social situation. Thus, the scope and aims of the research need to be realistic and justifiable within the constraints of the teaching context. The research should show how it builds upon, rather than detracts from, practitioners' major responsibilities for teaching. It should also show how it links to the notion of enhanced professionalism for educators and the personal and professional development of the participants. These criteria are closely tied to the notion of compatibility with educational aims and the concepts of reflexivity and praxis, in which theory and practice become mutually informing (e.g. Freire 1970).

Notwithstanding these considerations for enhancing the quality and rigour of AR, debates about what constitute underpinning validity criteria are very much at an evolutionary and contested point. And, as Greenwood and Levin note, in attempting to defend AR as a valid research approach, it would be unfortunate to assume 'transcendentally high standards' (2007, p. 113) that deter the very practitioners most likely to want to participate. Rather, '[t]he key in good AR practice is to design and sustain a process in which important reflections can emerge through communication and some good practical problem-solving can be done in as inclusive and fair a way as possible' (p. 113). If action researchers approach research in the spirit of providing fair and honest disclosure, and reflections on the contexts, the research issues, the cyclical phases and processes, the methods, the presentation and interpretation of the data, convincing 'validation' of the research (Heron 1996) is likely to ensue.

Techniques and instruments

Generally, action researchers employ qualitative techniques common in naturalistic exploratory research. There are essentially two main sources for data-gathering: observing and recording what people do; and asking people for their views and opinions. As in other forms of research, techniques should be closely aligned to the central questions or focus – it is pointless to try to understand what participants think about aspects of language learning by observing them undertake a particular task, for example. The techniques highlighted here do not imply, however, that AR data cannot be quantified through percentages, rankings, ratings and so on. However, using statistical calculations typical of quantitative approaches (see Phakiti this volume) is uncommon in AR. Burns (1999, Chapters 4 and 5) describes observational and non-observational techniques in detail.

Observing what participants do

Modes of observation include *other-observation* (researcher observations of other participants), *self-observation* (one's own behaviours, thoughts, actions, interactions) and *peer-observation* (observation by and with research colleagues, acting as mentors, influencers, critical friends, supervisors). Participant observation (where the researcher is part of the setting rather than a detached observer) is inevitable in AR; thus, peer-observation is a useful source of data triangulation to verify one's own observations. In some cases (more likely in formalized AR studies submitted as dissertations), *a priori* observational schemes developed for language acquisition research, such as FOCUS (Fanselow 1987) or Communicative Orientation to Language Teaching (COLT) (Spada & Fröhlich 1995) might be used, but more

commonly, AR observations focus on specific issues under investigation. Richards (2003) suggests four main areas for focusing observations: (i) the *setting* (e.g. context, spaces, locations), (ii) the *systems* (e.g. typical routines and procedures), (iii) the *people* (e.g. roles, relationships, responses) and (iv) the *behaviours* (e.g. timing, activities, events).

Observation is accompanied by techniques for capturing the phenomena observed, so that the researcher can revisit the situation objectively. Classically, anthropological ethnographic observation uses fieldnotes made during (obtrusive to other participants) or immediately afterwards (unobtrusive to others) observation that record in an objective and factual style. Increasingly, fieldnotes include reflective commentary, questions for further consideration, evaluations, and self-observations, all relevant to the dynamic and evolving nature of AR. Another 'classic' of AR observation is the researcher journal or diary (see Perkins 2001 for an example), a self-reflective tool written for various purposes. Personal journals are often used to 'let off steam', ruminate on passing thoughts or insights and record hopes, anxieties or even confessions. Other kinds of journals are 'memoirs', more objective and factual reflections on events or people, or even 'logs', running records of what contacts and transactions occur during the day. In a variation on free-form journals, some AR practitioners use grids or tables with relevant headings, for instance dates/times, issues arising, actions taken, changes made, reflections, comments, reactions, literature references. Journals sometimes include drawings, sketches, diagrams, maps, illustrations of student work, and mindmaps. With the advent of technology, fieldnotes and journals can be shared creatively among researchers or set up as blogs (Weblogs, such as Blackboard) or vlogs (visual Weblogs, like Flikr) for running commentary between participants.

Audio or video recordings have the advantage of capturing observational data verbatim and are accurate and reliable sources of data. Audio recording is less intrusive, while video, although more intrusive, includes non-verbal behaviour. Accustoming participants to the presence of the recording device is likely to result in more authentic records of typical interaction. A challenge in AR observation is that the researcher is also an actor in the context. Thus, if peer observation is not readily available, other recording mechanisms are needed. Typical techniques include: hand-held recorders for short, rapid commentary; post-it notes for passing insights or reminders; 'jottings' on lesson-plans or class handouts; electronic whiteboard copies; focused observations by students acting as co-researchers; photographs by teacher or students using disposable, digital or mobile phone cameras; maps and diagrams; mindmaps linking key observations and insights; spoken and/or written debriefings with peer-observers immediately after observations. Undertaking and documenting observations are limited only by participants' creativity; the key consideration is making them focused, flexible, convenient and adaptable to preferences and circumstances.

Asking participants for views and opinions

Non-observational and introspective techniques involve seeking views, beliefs and opinions about issues under investigation. They also include collecting artefacts from the research site, such as documents (policies, curricula, lesson plans, student work, test results) providing a track record or paper trail that reflect people's activities. Two mainstays of non-observational data collection are interviews and surveys or questionnaires. Structured (pre-planned sets of questions posed in fixed order), semi-structured (sets of questions used flexibly) or unstructured (open-ended conversational interactions) interviews offer various ways to tailor this technique to a specific focus and purpose, as do different combinations of participants (individualized, paired, focus group–oriented). Interviews can easily double as classroom learning activities. A variation on formal interviews, well adapted to AR for example, is a class or group discussion angled towards the research topic. For greater reliability, interviews are frequently recorded, audio recording usually being sufficient to capture participants' introspections for later analysis.

Surveys or questionnaires eliciting written data through closed and/or open-ended questions are also well adapted to classroom activities. Closed questions involve selecting specified responses and lead to tabulation and quantification (percentages, averages, frequency), while open-ended questions elicit fill-in or short answers and offer qualitative data from which the researcher derives themes, patterns and trends. Questions focus typically on factual, behavioural or attitudinal information (Dörnyei 2003). A major challenge lies in question preparation so as to avoid lack of clarity, ambiguity, bias and 'leading-the-witness', and for this reason, piloting the questions is recommended. Decisions also need to be made about the language and literacy levels required and whether responses should be completed in the mother tongue or alternative language.

One problem that inevitably arises in using these techniques is teacher–student power-relationships. McKay (2006, p. 55) suggests minimizing this threat to authenticity by: (i) explaining the purpose of the interview, what will be done with the information and the benefits to participants; (ii) being sensitive to students' responses and any awkwardness or nervousness that might arise; (iii) providing feedback and reinforcement during the interview through thanks, praise and support. This advice applies equally to the preparation and distribution of questionnaires. Linked to the power-relation issue is the problem that 'self-report' data are notoriously unreliable; responses may be simplistic, aimed to please, impress or cover up actual opinions for fear of reprisal. Consequently, action researchers should critically evaluate data obtained in this way against other sources.

Finally, as in other research, AR data are 'traces' or representations of events that provide evidence for the researcher's findings and interpretations. Inevitably, what is highlighted from the data is selective,

subject to researcher interpretation and ultimately represents dynamic situations statically. In AR, as perhaps in no other approach to research, to impact on practice, the evidence from the data must be supplemented and supported by what can be learned from and made meaningful about the practical social situation through deep reflection and experiential application.

Ethical considerations

As already noted, ethical considerations are tied up with the quality, value and democratic worth of the AR in changing and enhancing social situations for the participants. Thus, a fundamental ethical question is how the design of the research works towards educational improvement, more effective outcomes for students and the empowerment of teachers, professionally, educationally and politically. Underpinning AR goals are at least three important ethical issues (see also Burns, 2010).

Whose permission or consent is needed for the research?

It is vital to consider two types of permission. First, permission may need to be sought from the researcher's university, school board, district or school. Second, the researcher needs to obtain informed consent from other participants, such as colleagues and students. Even when written consent is not required, all stakeholders and participants have a right to information about the purpose, procedures, possible effects and how the research will be used, as well as assurances of anonymity, voluntary participation and withdrawal from the research without penalty. This is particularly important in an approach where researchers could be accused of 'experimenting' on their students and 'threatening' their educational achievement.

Who will be affected by the research?

Action researchers need to maintain vigilance about the possible consequences of the research on participants. No harm, risk or disadvantage should ensue, and again explanation and communication about the purpose of the research should be foregrounded. In AR, it is particularly important to be aware of the power differences inherent in the educational situation, and how they might affect participants' behaviours and reactions.

Who should be told about the research when it is completed?

Participants need to know that the outcomes of the research will be fed back to them for their input. Not only does the researcher do them the courtesy of sharing what comes out of the research but researcher interpretations are (re) affirmed. Information about how the research will be used and to whom it will be disseminated on completion also meets good ethical standards.

Conducting AR ethically involves confronting continual decisions, challenges and choices, which are not always self-evident because of the dynamic and shifting nature of the processes. Nevertheless, an ethical orientation is fundamental to the reflective and democratic spirit of AR and plays a central role in focusing and strengthening its quality, trustworthiness and credibility.

A sample study

The focus of Heather Denny's (2008) action research, conducted in a New Zealand (NZ) university over three semesters, was how to introduce her adult immigrant English as an additional language (EAL) learners to conversational skills and cultural norms of the local variety of English, as rapidly and efficiently as possible. The institutional curriculum required students to achieve criterion-based competencies in various spoken genres (e.g. *Is able to manage a conversation and keep it going for 6 minutes: opening, small talk, turn taking, responding to questions, remarks, etc., transitions, closing*). Perceiving that conversational models from available textbooks were inauthentic and non-reflective of local situations, she drew on work by Burns (2001), Butterworth (2000), Carter and McCarthy (1995), de Silva Joyce and Slade (2000) and Eggins and Slade (1997) to develop more realistic semi-scripted role-play dialogues. The approach involved 'giving native speakers a scenario based in real-life interactions … and asking them to role-play an exchange' which was recorded and transcribed (Denny 2008, p. 44). To facilitate and understand the development of her teaching practice using this approach, she undertook three cycles of AR with three different classes of mixed-age students at a level equivalent to 4.5 General on the International English Language Testing System (IELTS).

In the initial cycle, she used unscripted or semi-scripted conversations from published Australian materials (e.g. Delaruelle 2001), also experimenting by developing semi-scripted recordings and activities involving NZ native-speaker colleagues. Activities focused particularly on weaknesses identified in pre-tests; using formulaic expressions for conversational initiation and

introducing discourse markers (*so*, *well*, *anyway*) to maintain interaction. Students conducted role-plays rated by peers using the institutional assessment criteria mentioned above.

The second cycle took the investigations further by focusing on the staging of conversational transitions from initiation, to requesting and giving advice and concluding the interaction. Three transitional strategies, identified from semi-scripted recordings and published material, provided data for class activities, including student demonstrations, discussion of strategies used and role-play of complete conversations, during which students self-assessed, using yes/no/sometimes responses against given criteria (e.g. Start a conversation; Speak fluently in conversation using discourse markers (e.g. well, anyway, so, listen, look, now); Find the right question to get information from my partner).

The final cycle extended skills by introducing more complex conversational negotiations, including strategies for gaining attention, introducing a situational problem such as with an employer, teacher and real-estate agent, and insisting. Students listened to models, which were from authentic or simulated sources compiled by Denny, and responded to questions about vocabulary, linguistic features, staging of the conversational genre, getting attention and stating the problem in general and in detail, and using discourse strategies such as introducing softeners, suggesting compromises and checking outcomes. Discussions about conversational models focused on context, participants, power relations, situations and politeness. Other activities involved paired practice, identification of relevant discourse transitions, strategies and markers, demonstration role-plays, peer-coaching and peer assessment.

During all three cycles, data were collected through teacher-created pre-tests and institutional post-tests, initial and final written self-assessments, a student survey and a reflective researcher journal. Pre- and post-tests consisted of role-plays observed and evaluated by Denny according to criteria. For pre-tests, Denny created her own set of criteria (e.g. Uses appropriate language to manage transition to discussion topic) designed to diagnose each student's learning needs. Post-tests utilized the institutional requirements mentioned earlier. After each teaching period, students completed self-assessment check-lists evaluating discourse competencies. In cycle three, self-assessment occurred before teacher assessment, so that responses were not influenced by results. Surveys were completed at the same time as post-teaching self-assessments and students were asked to identify various activities they found most effective:

(i) direct activities using models;
(ii) more indirect activities such as practising with partners; and
(iii) most indirect activities such as practising outside class.

Denny's reflective journal recorded classroom activities, events and perceptions about effectiveness of activities, student progress and her own practices.

By comparing test results, she found that all students improved their weakest skills, but improvement across competencies was uneven. However, the self-assessments showed lower perceptions of individual improvement, particularly for activities in cycle two where students rated themselves higher on the pre-test. Surveys on preferred activities indicated that students found teacher information, practice in class, listening to tapes and studying transcripts the most useful across all cycles. Denny concluded that authentically oriented materials combined with classroom practice did contribute to student improvement. In relation to personal insights and skills development, she claimed that her professional learning about materials development as well as her knowledge about naturalistic data analysis increased: 'I have learned to trust the data in them and have progressively worked more directly with the tapes and transcripts, becoming gradually less worried that learners would find them too complex' (p. 55).

One area identified for future cycles was to investigate ways to enhance sociocultural knowledge of the discoursal features of naturalistic interaction. She also refined her research knowledge and skills realizing, particularly by the third cycle, the importance of recording student interaction for greater reliability in assessment and analysis, and wording surveys clearly and unambiguously. For further cycles, she saw follow-up student interviews as a way of triangulating data and increasing trustworthiness. She concluded: 'In all cycles I learned again that careful and trustworthy research takes more time than anticipated. However, I am convinced that the gathering of data facilitated more focused and rapid development of my teaching' (p. 56). Denny's research is a good example of a practitioner deepening her confidence in addressing a locally contextualized teaching issue and engendering self-reflective empirically based insights.

Resources for further reading

Altrichter, H, Posch, P & Somekh, B 1993, *Teachers Investigate Their Work. An Introduction to the Methods of Action Research*, Routledge, London.

While not focused on language teaching, this book is a classic for teachers, teacher educators and administrators wanting to understand and begin using action research alone or with professional colleagues. Organized as a handbook, it provides numerous practical methods and strategies.

Burnaford, G, Fischer, J & Hobson, D (eds), 2001, *Teachers Doing Research. The Power of Action Through Inquiry*, 2nd edn, Lawrence Erlbaum, Mahwah, NJ.

Using numerous examples from mainstream teacher action research projects in US schools and colleges, this book describes the processes of doing action research, discusses how technology can be integrated into methodology and explores the relationships between teacher research and the broader field of educational research.

Burns, A 2010, *Doing Action Research in English Language Teaching: A Guide for Practitioners*, Routledge, New York, NY.

This volume is a hands-on, practical guide for practitioners wishing to get started in action research. It introduces the main concepts and offers a step-by-step guide to the action research process. It includes numerous examples from language teacher action researchers internationally.

Edge, J (ed.), 2001, *Action Research*, TESOL, Alexandria.

This was one of the first books to provide chapter length examples of action research carried out in the field of language teaching internationally. The opening chapter offers an interesting synopsis of the history of action research, its developments within mainstream educational and applied linguistics/TESOL contexts and its relevance to teacher research and professional development.

Farrell, T (Series editor), *Language Teacher Research in… Series*, TESOL, Alexandria, VA.

This series of edited books is valuable in providing chapter length examples of research, including AR, carried out by language teachers in different international contexts – Asia (Farrell 2006), Europe (Borg 2006), the Americas (McGarrell 2007), the Middle East (Coombe & Barlow 2007), Australia and New Zealand (Burns & Burton 2008), Africa (Makalela 2009).

Griffee, D T 2012, *An introduction to second language research methods*, TESL-EJ Publications, E-book edition available at http://www.tesl-ej.org/pdf/ej60/sl_research_methods.pdf, viewed 13 May 2014.

Although this book is not specifically about designing and conducting action research, it is written very much in the spirit of encouraging teachers to become researchers so that their understanding of their beliefs and practices is expanded. One of the chapters deals specifically with AR design and is a useful introduction to the main processes and procedures.

Borg, S 2013, *Teacher Research in Language Teaching: A Critical Analysis*, Cambridge University Press, New York, NY.

This book reports on research investigating the extent to which teachers are engaged in research, both as consumers (or readers) and doers of research. It considers teachers' and academic managers' attitudes to teacher research and identifies factors that impede or promote engagement. It also reviews a number of projects conducted outside the context of formal study to examine how teacher research can be facilitated effectively.

References

Altrichter, H, Posch, P & Somekh, B 1993, *Teachers Investigate Their Work: An Introduction to the Methods of Action Research*, Routledge, London.

Atiti, A 2008, 'A critical action research on organisational learning and change for sustainability in Kenya', PhD thesis, Macquarie University, Sydney.

Bradbury, H & Reason, P 2001, 'Conclusion: Broadening the bandwidth of validity: Issues and choice-point for improving the quality of action research', in P Reason & H Bradbury (eds), *Handbook of Action Research*, Sage, London, pp. 447–455.

Brumfit, C & Mitchell, R 1989, 'The language classroom as a focus for research', in C Brumfit & R Mitchell (eds), *Research in the Language Classroom*, Modern English Publications and The British Council, London, pp. 3–15.

Burns, A 1999, *Collaborative Action Research for Language Teachers*, Cambridge University Press, Cambridge.

——— 2001, 'Analysing spoken discourse: Implications for TESOL', in A Burns & C Coffin (eds), *Analysing English in a Global Context*, Routledge, London, pp. 123–148.

——— 2005, 'Action research: An evolving paradigm?', *Language Teaching*, vol. 38, no. 2, pp. 57–74.

——— 2010, *Doing Action Research in English Language Teaching: A Guide for Practitioners*, Routledge, New York, NY.

——— 2011, 'Action research', in E Hinkel (ed.), *Handbook of Research in Second Language Teaching and Learning*, Volume II, Lawrence Erlbaum, Mahwah, NJ, pp. 237–253.

Butterworth, A 2000, 'Casual conversation texts in listening to Australia', in H de Silva Joyce (ed.), *Teachers' Voices 6: Teaching Casual Conversation*, National Centre for English Language Teaching and Research, Macquarie University, Sydney, pp. 3–10.

Carter, R & McCarthy, M 1995, 'Grammar and the spoken language', *Applied Linguistics*, vol. 16, no. 2, pp. 141–158.

Cornwell, S 1999, 'Interview with Anne Burns and Graham Crookes', *The Language Teacher*, vol. 23, no. 12, pp. 5–10.

Crookes, G 1993, 'Action research for second language teachers: Going beyond teacher research', *Applied Linguistics*, vol. 14, no. 2, pp. 130–144.

Delaruelle, S 2001, *Beach Street 2*, New South Wales Adult Migrant English Service, Sydney.

Denos, C, Toohey, K, Neilson, K & Waterstone, B 2009, *Collaborative Research in Multilingual Classrooms*, Multilingual Matters, Bristol.

Denny, H 2008, 'Teaching conversation and negotiation skills using teacher-made, semiscripted conversation models', in A Burns & J Burton (eds), *Language Teacher Research in Australia and New Zealand*, TESOL, Alexandria, VA, pp. 43–60.

de Silva Joyce, H & Slade, D 2000, 'The nature of casual conversation: Implications for teaching, in H de Silva Joyce (ed.), *Teachers' Voices 6: Teaching Casual Conversation*, National Centre for English Language Teaching and Research, Macquarie University, Sydney, pp. viii–xv.

Dörnyei, Z 2003, *Questionnaires in Second Language Research: Construction, Administration and Processing*, Lawrence Erlbaum, Mahwah, NJ.
——— 2007, *Research Methods in Applied Linguistics*, Oxford University Press, Oxford.
Eggins, S & Slade, D 1997, *Analysing Casual Conversation*, Cassell, London.
Elliott, J & Sarland, C 1995, 'A study of 'teachers as researchers' in the context of award-bearing courses and research degrees', *British Educational Research Journal*, vol. 21, no. 3, pp. 371–385.
Ellis, R 2010, 'Second language acquisition, teacher education and language pedagogy', *Language Teaching*, vol. 43, no. 2, pp. 182–201.
Fanselow, J 1987, *Breaking Rules: Generating and Exploring Alternatives in Language Education*, Longman, New York, NY.
Freire, P 1970, *The Pedagogy of the Oppressed*, Herder & Herder, New York, NY.
Greenwood, DJ & Levin, M 2007, *Introduction to Action Research. Social Research for Social Change*, 2nd edn, Sage, Thousand Oaks, CA.
Heron, J 1996, *Co-operative Inquiry: Research into the Human Condition*, Sage, London.
Jarvis, G 1983, 'Action research versus needed research for the 1980s', in L Lange (ed.), *Proceedings of the National Conference on Professional Priorities*, ACTFL, Materials Center, Hastings-on-Hudson, NY, pp. 59–63.
Kemmis, R & McTaggart, R 1988, *The Action Research Planner*, 3rd edn, Deakin University Press, Geelong.
McKay, S 2006, *Researching Second Language Classrooms*, Lawrence Erlbaum, Mahwah, NJ.
Mackey, A & Gass, S 2005, *Second Language Research: Methodology and Design*, Lawrence Erlbaum, Mahwah, NJ.
Perkins, A 2001, 'Here it is, rough though it may be: Basic computer for ESL', in J. Edge (ed.), *Action Research*, TESOL, Alexandria, VA, pp. 13–19.
Richards, K 2003, *Qualitative Inquiry in TESOL*, Palgrave, London.
Spada, N & Fröhlich, M 1995, *Communicative Orientation of Language Teaching Observation Scheme: Coding Conventions and Applications*, National Centre for English Language Teaching and Research, Macquarie University, Sydney.
Winter, R 1987, *Action-research and the Nature of Social Inquiry*, Gower Publishing, Aldershot.
Zeichner, KM & Noffke, SE 2001, 'Practitioner research', in V Richardson (ed.), *Handbook of Research on Teaching*, 4th edn, American Educational Research Association, Washington, DC, pp. 298–330.
Zuber-Skerritt, O 1990, *Action Research in Higher Education. Examples and Reflections*, Kogan Page, London.