Review

Action research in reflective teaching

Mohammad Reza Sadeghi

Isfahan University, Iran

Email: rsadeghi14@gmail.com

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Reflective practice is “the persistent and careful consideration of any belief or supposed form of knowledge in the light of the ground that support it and the figure condition to which it tends”. As teachers, we need to know what is actually happening in our classroom, what learners are thinking and so on. The purpose of this paper is to illustrate the processes and procedures of conducting action research as a particular way of looking at our practice in second and foreign language contexts. It also examines some of the procedures of data collection which plays a crucial role in action research. This paper maintains that how action research can be conducted by teachers in any context regardless of their states or position.

Keywords: Reflective teaching, action research

INTRODUCTION

In a review of literature on reflective teaching (Richards and Nunan D. 1990; Kumaravadivelu 1994; McNiff and Whitehead 2002), we can discover that there is much variance in the definition of reflective teaching. The concept of ‘reflective teaching’ is composed of two different concepts: ‘reflection’ and ‘teaching’. Bartlett (1990) defines teaching as “an interactive process among a group of people learning in a social setting describe as classroom” define teaching as “taking place when someone (a teacher) is teaching someone (a student) about something (a curriculum) at some place and sometime (a milieu) (cited in Farrell1995).

Improvement of ‘teaching’ may be achieved through ‘reflection’. Reflection is more than thinking and focuses on day-to-day teaching of the individual teacher as well as the institutional structures in which teacher and students work (Richards and Nunan, 1990). Richard (1990) defines reflections a “key component of teacher development”. He says that “self-inquiry and critical thinking can help teachers move from a level where they may be guided largely by impulse, intuition, or routine, to a level where their actions are guided by reflection and critical thinking”.

Valli (1992) stated that reflection is “the capacity to notice oneself noticing, that is, to stop and back and see one's mind working in relation to its projects (cited in Longenecker, 2001). Pennington (1995) says that teacher change and development require an awareness of a need to change. She defined teacher development as “a meta-stable system of context-in-interactive change involving a continual cycle of innovative behavior and adjustment to circumstances” (Longenecker, 2001).

One of the earliest definitions of reflective practice is provided by Dewey (1910). He defines reflective practice as “the persistent and careful consideration of any belief or supposed form of knowledge in the light of the ground that support it and the future condition to which it tends” (cited in Longenecker, 2001). Cruickshank defines reflective teaching as “the teacher's thinking about what happens in classroom lessons, and thinking about alternative means of achieving goals or aims; he sees it as a means to provide students with "an opportunity to consider the teaching event thoughtfully, analytically and objectively”(Cruickshank and Applegate 1981; Richards and Nunan, 1990). Pollard and Tann (1994) believe that reflective teaching involves “a willingness to engage in constant self-appraisal and development which among other things implies flexibility, rigorous analysis and social awareness” (cited in Parker, 1997). Recent research on reflection has used different terms to define reflection teaching: technical rationality, reflection-in-action, reflection-on-action, reflection-for-action, action research, and so on (Kumaravadivelu, 2003).

The first type of reflection is ‘technical rationality’. Most of the research and literature concerning reflective practice begins with a critique of a theory of teaching and teacher education referred to as technical rationality (Parker, 1997). A technical rationality approach to
teacher education focuses on the “transfer of knowledge and technical competence from the university instructors to the teachers in training”. Technical rationality is, therefore, defined as “a prescriptive, transmission-based approach to teaching and learning, where teachers are considered program operators whose primary responsibility is to administer the instructional programs designed by university based researchers” (Longenecker, 2001).

The second type of reflection practice is called ‘reflection-in-action’. According to Schon (1983) this type of reflection is concerned with “thinking about what we are doing in the classroom while we are teaching. This thinking is supposed to reshape our teaching. Kumaravandivelu (2003) stated that “reflection-in-action occurs during the act of teaching as teacher monitors his/her ongoing performance, attempting to locate unexpected patterns on the spot and then adjusting his/her teaching instantaneously” (Schon, 1983).

The third type of reflection is called ‘reflection-on-action’. Reflection-on-action occurs before or after a lesson. Reflection-on-action deals with thinking back on what we have done to discover how our ‘knowing-in-action’ may have contributed to an unexpected action. This includes reflecting on our reflecting-in-action, or thinking about the way we think (Farrell, 1995).

The forth notion of reflection is called ‘reflection-for-action’. Reflection-for-action is different from the previous notions of reflection. Killon and Todnew (1991) argue that reflection-for-action is the desired outcome of both previous type of reflection, reflection-in-action and reflection-on-action. They state that “we undertake reflection, not so much to revisit the past or to become aware of the meta-cognitive process one is experiencing, but to guide future action” (Farrell, 1995).

The fifth notion of reflection is called ‘action research’. Action research into our teaching practice is an important source of learning and improvement. Action research has been used in many areas where an understanding of complex social situations has been sought in order to improve the quality of life. Among these are industrial, health and community work settings. The goals of action research are to seek local understanding and bring about improvement in the context under study (Bailey, 1998). Action research is conducted by teachers and for teachers. It is small scale, contextualized, localized, and aimed at discovering, developing, or monitoring changes to practice. Action research can inform teachers about their practice and empower them to take leadership roles in their local teaching contexts (Wallace, 2000; Donato, 2003).

The origins of action research

The origins of action research are unclear within the literature. Authors such as Kemmis and McTaggert (1988), Zuber-Skerrit (1992), Holter and Schwartz-Barcott (1993) state that action research originated with Kurt Lewin, an American psychologist (Masters 1995). McKernan (1991), states that action research as a method of inquiry has evolved over the last century and careful study of the literature shows “clearly and convincingly that action research is a root derivative of the scientific method reaching back to the Science in Education movement of the late nineteenth century” (McKernan, 1991). He also states that there is evidence of the use of action research by a number of social reformists prior to Lewin, such as Collier (1945); Lippitt and Radke (1946); Corey (1953).

Definition of action research

Action research methodology offers a “systematic approach to introducing innovations in teaching and learning”. In this approach teachers are both the producer of the theory and the user of the theory, that is, the theorizers and the parishioners are teachers themselves (Riding et al1995). “Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction”. Accomplishing these two goals requires the active collaboration of researcher and practitioner, and thus it stresses the importance of “co-learning as a primary aspect of the research process” (O’Brien 1998). Recently, Mills (2003) provides the following definition of action research:

Action research is any systematic inquiry conducted by teacher researchers to gather information about the ways that their particular school operates how they teach, and how well their students learn. The information is gathered with the goals of gaining insight, developing reflective practice, effecting positive changes in the school environment and on educational practices in general, and improving student outcomes. (Donato 2003).

Despite the differences between these interpretations of action research, there is a common core which distinguishes action research from research in general. Action research occurs within a “specific classroom situation, is usually conducted by the teacher as classroom participant, and aims to develop the situation and the teacher-researcher rather than generate additions to the pool of human knowledge” (Watson 1999). According to Masters (1995) there are four basic themes within all these definitions: “empowerment of participants; collaboration through participation; acquisition of knowledge; and social change”.
Why should teachers conduct action research?

To improve and develop our teaching, research into our classrooms is needed. Action research is conducted by teachers and for teachers. As teachers, we need to know what is actually happening in our classrooms, what learners are thinking, why learners are reacting in the ways they do, what aspects of the classroom we should focus on to develop our teaching most effectively, how we should change in these aspects, and what the effects of such a change are. So, action research into our own teaching practice is an important source of learning for the group. Action research can inform teachers about their practice and empower them to take leadership roles in their own teaching contexts. Teachers, then, can become “more autonomous, responsible and answerable through action research” (Day, 1987).

The Action Research Process

In reflective practice, practitioners engage in a continuous cycle of self-observation and self evaluation in order to understand their own actions and the reactions they prompt in themselves and in learners (Brookfield 1999; Thiel 1999; Cunningham 2001). There have been proposed different model for action research by different authors. Some proposed the following model (Figure 1) for action research in which there are seven steps in doing action research: 1) identifying a focus of interest or a problem, 2) collecting data, 3) analyzing data / generating hypotheses, 4) planning action steps, 5) implementing action steps, 6) collecting data to monitor changes, and 7) analysis and evaluation (McBride 1989).

In the rest of this paper the above-mentioned steps will be explained in detail.

Identifying a focus of interest or a problem

As reflective teachers, we have to go through a period of reflection about our own teaching in the classroom. There may be an area where we think we are failing; or a part of the curriculum that we feel that is inadequate; or a topic about which we would like to know more and so forth. We all, to some extent, enjoy doing certain work or sometimes we realize that part of our work is not as good as it might be. One reason for posing some problems is to discuss our work with our colleagues or our friends in order to have some changes in our work. The first steps in making changes are the worst. “Talk yourself up and be prepared to fly by the seat of your pants a little” (McBride and Schostak 1991). This is not to suggest that you should be careless rather that you should override the fears you might have and be prepared to deal with difficulties only if they arise. Bear in mind that change and improvement only come about when people take risks. “It is also our experience that as the action research process is worked through, action researchers do not look back. Rather they develop a confidence about their study and, more generally, adopt a resourceful and flexible approach to their practice. In short, they are empowered and independent” (McBride and Schostak 1991).

Collecting data and making representation

Problem posing can be a first step in collecting data. Before starting the discussion on collecting data it is necessary to clarify what data is. Data can be collected through audio-taped observations, interviews, action experiments and `participant-written` cases. Action experiments entail discussion with subjects “on the spot”
during action taking, while ‘participant-written’ cases are the written recollections of the subject following action taking (Argyris et al., 1985; McBride and Schostak 1991). Data can take any form and be collected from different sources. There are no special rules about how to collect data, but there are some guidelines which can be useful. Although “having an open mind in the collection of data may seem to be some sort of objective ideal, it is hardly possible. Every researcher is interested or curious about something. It is this curiosity through which questions are formed, and patterns are identified” (McBride and Schostak 1991). According to McBride and Schostak (1991), in order to know more about something, one has to observe more closely, and collect more data.

Research questions will guide the researchers in “becoming selective” about what to record. For example, if we want to answer a question about ‘water pollution’, we exclude the ‘irrelevant’ descriptive material that would be necessary if we were answering question about ‘designing computer program’. That is, we would exclude anything that did not relate to water pollution problem. According to McBride and Schostak (1991) in the process of collecting data, researchers will be involved primarily in: 1) observation, 2) interviewing, and 3) collection of documents and artifacts.

Observation

Observation is more than just looking and seeing. The task of observation is to be able to represent a “social scene in a way which is recognizable to the actors involved, is considered valid and a true representation of their action” (McBride and Schostak, 1991). Observation in second language classroom can be divided into two main types: 1) self-observation, 2) observation of the experienced teachers’ classroom by student teachers and 3) recording lessons.

2.1.1. Self-observation: One way in which student teachers and teachers can reflect on their own teaching process is through self-observation. Self-observation or self-monitoring refers to a “systemic approach to the observation, evaluation, and management of one’s own behavior for the purposes of achieving a better understanding and control over one’s behavior” (Richard 1990). The simplest approach to self monitoring is through the use of diary or journal in which the teachers provide an ‘honest report’ of what happened in the classroom (Richard 1990). Bailey (1990) defines a diary as: “a first-person account of a language learning or teaching experience documented through regular, candid entries in a personal journal and then analyzed for recurring patterns or salient events” (quoted in Richard 1990).

2.1.2. Observation of experienced teachers’ classroom by student teachers: Another way in which student teachers can begin to acquire action-system knowledge is through guided, systematic, and focused observation of experienced second language teachers. Such a process will help student teachers in “conceptualizing what goes on in second language classroom.

2.1.3. Recording lessons is another way of collecting data for reflective teaching. Audio or video recording of lessons provide a more reliable record of what actually happened in the classroom than diaries or self-reporting. Although self-reporting and diaries are very useful in collecting data but moment-to-moment processes of teaching cannot be recorded through diaries or self-reporting. The simplest way of recording a lesson is to place a video-recorder in the classroom to record what actually happened in our teaching. One of the most advantages of recording technique is that the recorded lesson can be used by the teacher or others whenever it is needed.

Interviewing

Much of our data will probably be collected by interviewing. An interview is “a record of the other's voice. The voice is something very personal. Interviewing involves dealing with questions” (McBride and Schostak, 1991). There are different kinds of interviewing. Richard (1990) classified interviewing as: 1) formal, and 2) informal.

2.2.1. The most formal kind of interviewing would be similar to the “researcher reading a questionnaire to the interviewee” and the interviewee answers the questions. The interviewer’s task is “to ensure a correct interpretation by the interviewee of the interview schedule”.

2.2.2. In a less formal interview the interviewer would have a list of broad questions but would follow up ‘interesting’ issues raised by the interviewee in response to the questions. Informal interviews try to engage the interviewee in ‘conversations’. The researcher’s aim is to allow the interviewees to address their own interests without imposition by the interviewer. The interviewer may begin with a simple question such as: Can you tell me something about ‘x’? Typically, the interviewee tries to explain the phenomenon from his/her point of view. Informal interviewing may take place under formally agreed conditions; or, it may be simply a passing conversation. In the latter case the researcher has to consider the ethical questions associated with using this information. (McBride and Schostak, 1991).

Documents and artifacts

During the course of everyday action, documents and artifacts are often made or used. Documents include not only the “official organizational papers/reports/brochures but also the more work-a-day memos, work plans, and
materials” (McNiff and Whitehead 2002). “There are the artifacts [models, artwork, craftwork etc] and other ‘props’ [e.g., furniture, pictures and other background objects which can either be functional or have aesthetic or symbolic value] and tools of the day-to-day work of the organization. Each of these has a meaning for the actors which need to be discovered (Richard and Nunan1990). Diaries written by ourselves or others can be a kind of document. As “a research genre, diary studies are part of a growing body of literature on classroom research” (Allwright 1983; Richard and Nunan 1990). Diaries can be considered as recorded documents of our every day classroom reports. Diaries have the added advantage of “soon becoming reflective, that is, you will find yourself writing down private thoughts which can be enormously illuminative about your own understandings and biases. It is not unusual to find that a diary at least provide a useful record of your activities”. At best it will become a reflective account of our activities and a major source of data (McBride and Schostak, 1991).

Analyzing data and generating hypotheses

After implementing of the above-mentioned steps- step (1) and (2) - the collected data must be analyzed and interpreted to generate hypotheses. According to McBride and Schostak (1991) the process of analyzing data or interpreting data requires a systematic ordering of data. While we are organizing our data we may find yourself “deep in thought during odd moments, thinking about interviews or something said in your class” (McBride and Schostak, 1991). In short, you will have begun to analyze your data. If you have audio or video tapes, we may review them and take some notes. You may have some other notes read them. Begin to organize your notes and use a highlighter pen to pick out the parts you believe are important. Do the same with documents and papers. It is neither essential nor good practice to create theories which are not accurate. Data used to support a theory should come from a range of sources. Data used in this way is called evidence (McBride and Schostak, 1991).

Planning action steps

Action planning is the next step which is followed by the researcher. This activity specifies ‘organizational actions’ that should solve or improve these primary problems. The finding of the ‘planned actions’ ‘is guided by the theoretical framework, which indicates both some desired future state for the organization, and change that would achieve such a state. The plan establishes the target for change and the approach to change” (Baskerville 1999). While we are formulating and planning, the process of building theory is also going on.

Building Theory

A theory is an “explanation which links together elements of the data that you have collected”. We all have and also make theories about the world all the time. Research allows us the chance to develop and then to test some of these theories in practice (McBride and Schostak, 1991). According to McBride and Schostak (1991) in building theories, we can ask ourselves such questions as:

- Do people who are in a similar social position (e.g. all teachers) give the same kinds of explanations e.g., ‘boys will be boys’?
- Do people who are in contrasting social positions give the same or different kinds of explanation? E.g., do the working class and the upper class explain wealth differences similarly or differently?
- Do events observed in one context persist in order contexts? E.g., Sarah may be observed to be inarticulate when told to explain things to a teacher. Is she also similarly inarticulate when she is explaining equally difficult things to a friend in the playground? If she is not then conjectures may be made about the different social settings having an influence upon Sarah's competence to explain things to others. If similar phenomena are found with other girls then it is important to compare with groups of boys. It is also important to take into consideration other factors such as age, social class and so on. In this way a theory might be built about behavior in groups in relation to social context.

In this process we have begun to examine not only the beliefs of others but also of ourselves. “These beliefs and practices have been challenged and perhaps changed by listening to and observing a very much wider group of people than we would be able to do in ordinary conversation and observation. Theory and action are inter-related in that we act, develop theory, act and so on”. When we build poor theory our actions often produce outcomes that are different or even contrary to what we expect. It is often said by scientists that “there is nothing more practical than a good theory” (McBride and Schostak, 1991).

Action plans

According to Baskerville (1999) by identifying and generating alternatives, choices can be made and action taken. The final major step in the process of action research is to formulate action plans. We can distinguish two broadly different kinds of action plan:

4.2.1. The first seeks only to change the details of existing ways of doing things; or, to solve certain problems in the performing a plan without changing the overall plan. This kind of action plan occurs when through discussion members of a group are convinced that their current practices are basically desirable but that certain problems
still need to be solved.

4.2.2. The second seeks to replace the existing way of doing things with a different way of doing things. This kind of action plan occurs when through discussion members of a group become convinced that the current practices are not useful in comparison with another way of doing things identified through the research and observation carried out.

Implementing action steps

People who work closely together find ways of discussing their work and develop an understanding for each other’s preferences and views. In collegial institutions teachers and others develop a culture which incorporates ways of understanding and working with each other. “If you have colleagues involved, you will need to talk to each other but ultimately, as above, change rests upon somebody actually deciding to do something”. There are often more reasons for not doing than doing. And it is in the nature of things that “all change involves a risk”. If you do not run a risk you will have to wait for a long time. If you “have collected and analyzed your data carefully and attempted to ensure yourself that you have some people willing to participate, you at least have a chance” (McBride and Schostak, 1991).

Collecting data to monitor change, analyzing and evaluating

After putting the planned action to implementation, the researcher must try to collect data and evidences to monitor, analyze, and evaluate the generated hypothesis. The collaborative researchers and practitioners evaluate the outcomes. Evaluation includes “determining whether the theoretical effects of the action were realized, and whether these effects relieved the problems. If the changes were successful, the evaluation must critically question whether the action under taken, among the myriad routine and non-routine organizational actions was the sole cause of success. Where the changes were unsuccessful, some framework for the next iteration of action research should be established” (Baskerville 1999). Indeed the process is seen as “a never ending spiral which looks like a coil” (McBride and Schostak, 1991).

CONCLUSION

To improve and develop our teaching, research into our classrooms is needed. Action research is conducted by teachers and for teachers. As teachers, we need to know what is actually happening in our classrooms, what learners are thinking, why learners are reacting in the ways they do, what aspects of the classroom we should focus on to develop our teaching most effectively, how we should change in these aspects, and what the effects of such a change are. So, action research into our own teaching practice is an important source of learning for the group. Action research can inform teachers about their practice and empower them to take leadership roles in their own teaching contexts. Teachers, then, can become “more autonomous, responsible and answerable through action research” (Day, 1987), and so decisions concerning change can be taken by teachers themselves. One outcome of this is that action research is likely to be relevant and immediately useful in understanding and developing the specific classroom context in which it was conducted, and so of benefit to learners. Another outcome is that the research becomes both “an input into and a stimulus for teacher reflection (indeed, teacher reflection is one of the key tools in conducting action research), and reflection is a necessary component of personal and professional development” (Watson Todd 1999).

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