Finding and clarifying a starting point for your own research

The first step in a research process is to find and formulate a feasible starting point. What issue in my practical experience is worth studying over a period of time? Does it fit my capabilities and do I have the resources? Is there a fair chance I can get somewhere if I research this issue? These are questions one needs to ask when beginning action research. In this chapter, we provide some suggestions and ideas to help you to answer them.

What do we mean by starting points for research?

What does a feasible starting point for action research look like? How do teachers reach such starting points? Let's have a look at how Kory Bennett, a middle school science teacher, described his starting point to other students enrolled in a university course on action research taught by Allan (see M4.7 for more information).

Kory's starting point began with his reflecting on an experience that he had when he was in his second year of teaching. It centered on Jason, one of the pupils in his class. Kory had this first impression of Jason:

> *Jason was a relatively laid-back kid; he was one to two years older than most of the students in the class, and he generally spent time socially interacting with them, however, he often encouraged the other kids to participate in class activities. I thought highly of Jason as a class advocate and he was extremely respectful of me and my position as a teacher. It was obvious that he was highly adept at negotiating and manipulating his social surroundings, and at the time that made me think of him as a "smart kid." On the other hand, Jason was in the "regular" science class, which was considered by the school the "lowest level students." It was indicated on the class roster that he was receiving special education services, and his caseworker reported back to me that Jason was reading below grade level. As much as I hate to admit it, when I worked with Jason on an academic level, I often had these factors in mind, despite failing to investigate the specifics of his situation.*

Jason was having a difficult time in my science class with tasks that required reading, writing and recalling the content information, and on occasion his questions seemed far from our focus and not particularly perceptive. Jason, also, despite being respectful was always willing to remind his classmates of the way that they were labeled by the school community—he was fond of yelling out, "You know we boom, boom ya'll." Many of the kids were well aware of the labels they wore (lower level, special ed, etc.), and how others perceived them. While Jason was able to eventually pass the class, his schoolwork basically remained on the same level on which he had started, and he continued to perform poorly on written exams. He had improved his reading level, and I had come to know him as a witty, creative young man with many social interests. However, I felt as though our class and my instruction had minimal effect on his future success.

From this first part of his starting point speech we can see how Kory, although aware of the effects of labeling, for the most part accepted what he had been told by the school about Jason. In addition, Jason's behavior and lack of academic success seemed to confirm that. However, he became aware of a major discrepancy with his beliefs about Jason during an incident that happened during the last week of the school year.

Jason was excited to show me pictures of and tell me about his "project," which he had mentioned for a few weeks, but without detail. The pictures were of his three-wheeled bicycle, which had two wooden boxes around the back wheels. I asked him if they were for carrying stuff, but he told me that it was the speakers for the stereo system he had hooked up to the bike. "That's why I'm showing you," he said (a bit surprised). I looked at it a bit puzzled at first, wondering why anyone would do that. After Jason explained it was so the "ladies" could hear him coming down the street, he told me about how he had hooked the system to the bike. He explained the wiring he had to do, how the amplifier worked, and he asked about the battery that was giving him trouble. As Jason was explaining the process, and I was searching my mind for answers about the battery, I realized that I had greatly underestimated, misunderstood, failed to interpret and simply overlooked Jason's abilities as a human being. In this case, I failed to recognize that despite his trouble with the surface features of his educational experiences, he had a firm grasp of problem solving and creative, innovative thinking. I certainly take the blame for my misconceptions, and I feel as though I allowed the labels Jason bore (he often voiced when he felt the opportunity called for it) to cloud my perception of him on fundamental levels.

Kory's revisiting of his interactions with Jason and reflecting on how they were both affected by the ways that Jason had been labeled by the educational system led him to ask the following questions:

I am curious of the effects, other than those intended, such a system has inflicted on the educational landscape and the children that populate it ...

Additionally, I consider how students are actively defining and redefining themselves in relation to labels, and more concretely how their teachers and peers interact with them. The only way most students know anything about labels is how that label is used in our school-site language, and how they have been treated throughout their academic career. I wonder how we can work together to construct positive perceptions of labels, or expose them for what they really are (whatever that may be).

While these questions are important, they go beyond Kory's practice and his particular educational situation. As such, they could be and have been studied using traditional educational research methods. However, rather than stopping there, Kory then added to his starting point speech what the effects might be on him as a teacher and how it affects his teaching.

I have recently realized through active reconnaissance, that my attitude as a teacher is affected by the label the overall class is given (e.g. advanced, gifted-honors). For instance, I seem to be less strict (academic and discipline) with students in "lower-level" classes, than those of the "high-levels." While I do believe that I go to great lengths to view each student as an individual, and not through generalizations and stereotypes, I know that it would be impossible to completely eliminate these influences. It is my intention to identify the effect that labeling has on my own practices. More importantly, I would like to adjust my perspective as an educator to better view my ever-fluctuating student population. As a student I was placed with both formal and informal labels in which I came to understand through my interactions with other kids and how teachers as well as my parents, talked about my educational experiences. Teachers must be aware of the profound impact we play in the formation of our students' identities; how our actions and language act as shaping agents used by our students to understand who they are and where they belong in the world.

Kory ended his starting point speech by recounting and reflecting on the last time he saw Jason, which was when he was in eighth grade.

I walked into a classroom the size of a broom closet with kids packed wall to wall. I remarked to them all, I see that they have you in the big room this week. Without missing a beat Jason said in his usual humorous way, "this is the boom, boom room, Mr. B." And all the kids laughed with him. I wonder if he'll always view himself in that way, and if I am partly to blame for his perception.

This example illustrates two further important characteristics of action research:

1   Whatever is formulated as the starting point can only be a first view of a situation that is very likely to change in the course of the

research process. Action research tries to avoid the dogma of fixed hypotheses that, in more traditional research approaches, cannot be modified once the research has begun (see Cronbach, 1975). Instead, the action researcher remains open to new ideas that may influence the course of the action research while it is taking place. In this way, any development of the initial starting point becomes an important indicator of the learning of the practitioner carrying out the research.

2   Whatever is formulated as a starting point often touches only the surface of a problem. A more detailed clarification of the problem situation and a further development of this "first impression" help to develop a deeper understanding of all the related factors and open up new possibilities for action.

Features of starting points

What are the essential features of starting points for action research? First, they have a *developmental perspective*: for example, a teacher wants to improve a practical situation, such as how to recognize the person behind the label, and to further develop his or her own competences. Second, they have a *research perspective*, an interest in understanding: practitioners want to understand the practical situation, its context, their own action within it, and their effects in order to develop this situation in a productive direction. This "double goal" is one of the main characteristics of action research (see Chapter 1) and leaves its mark on the design of action research projects.

This double goal can be seen in Kory's starting point speech. He sought to improve his practice so that he could adjust his perspective to better view the individual pupils who make up what he called his "fluctuating student population." At the same time his starting point had a research perspective that is tied to his desire to work toward social justice for his pupils by exposing the labels "for what they really are."

Discrepancies Typically, starting points for action research begin with *experiences of discrepancies*. They can be:

- discrepancies between plans and expectations, on the one hand, and actual practice, on the other (for example, Kory's desire to see every pupil as an individual human being).
- discrepancies between the present situation and a general value orientation or an aim (for example, the need to provide special services for pupils and the resulting stigmatization of being labeled "special ed.").
- discrepancies between the ways in which different people view one and the same situation (for example, the whole class with a

large number of special needs pupils will be stigmatized as a low ability class).

Discrepancies like these give food for thought once they are consciously recognized. Action research begins with reflection upon such discrepancies and tries to save them from being forgotten in the maze of everyday work (see M2.4). They become the focus for further development of the teaching process and for the generation of knowledge about that process. Such discrepancies need not always be negative and problematic for the teacher, nurse, social worker, or other practitioners. Action research can also focus on trying out good ideas for improvements or on the further development of one's own strengths.

Sources for starting points

What are the main sources for finding starting points for research and development? In our experience, action researchers turn to the following sources (see Figure 4.1):

I Own experiences in their practice settings

Most often it is their own observations and experiences in their work settings that give practitioners ideas and reasons for their development work. Starting points may be derived from very different types of experience. Marion Dadds (1985) mentions three types of starting points that derive from experience:

a   an *interest*—for example, trying out a promising idea, developing a strength, or coping with a routine obligation in a more considerate and economic way;
b   a *difficulty*—for example, wanting to improve a difficult situation, solve a problem, or compensate for a deficiency;
c   an *"unclear" situation*—action researchers often begin with bigger or smaller "puzzles"—situations that are not clearly positive or negative, enjoyable or burdensome, but that raise an issue they want to understand more fully. Often their work begins with unexpected experiences that they are unable to interpret, but believe might serve as a useful starting point to further develop their practice.

It is very likely that every starting point contains characteristics of all three types in various combinations. In our example, Kory wanted to improve the opportunities for all the pupils in his classes (a); but faced the problems caused by the complexity of the problem and his lack of knowledge (b); and was unclear about how to proceed to make a difference (c).
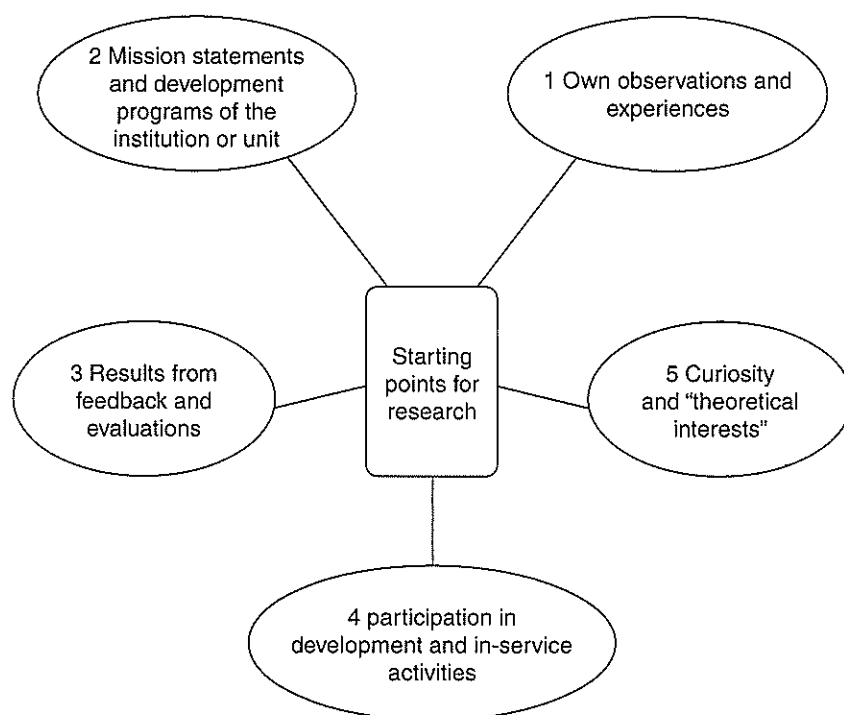
Figure 4.1 Possible sources for starting points (adapted from Altrichter, Messner, & Posch, 2004, p. 65).

2 Mission statements, on-going programs, and development programs of the institution

Topics that are important for the institution or unit, such as classrooms, schools, or clinics, provide a potential starting point for action research. So, what is promised in mission statements, programs, profiles, and management plans can be moved forward or made problematic through action research. Similarly, complaints; diminishing numbers of pupils, clients, or patients; or developments in the community or the surrounding region may produce questions and chances to be tackled by practitioners engaged in action research (Calhoun, 1994b).

3 Results from feedback and evaluations

Personal feedback provided to teachers, social workers, or nurses by pupils, clients, patients, or other stakeholders may also be starting points. Similarly, results from institutional self-evaluation, continuous quality management, external evaluations, or comparisons with other institutions or units ("benchmarking") may make visible questions that are in need of more thorough study or new pathways for development (see Altrichter et al., 2004). It is also possible for these to lead action researchers to delve into the policies that generate these types of evaluations.

4 *Participation in development and in-service programs*

Participation in initiatives by central and regional institutions that seek to stimulate innovation through development programs, prizes, or specific funding (see Feldman, 1995) may also provide starting points for action research: if, for example, high-quality learning in science classrooms (see Feldman & Capobianco, 2000) or cooperative open learning in upper secondary schools (see Wittwer, Salzgeber, Neuhauser, & Altrichter, 2004) is to be supported, this obviously necessitates reflective development work by practitioners. Also, in-service programs may offer ideas for development of practice, and they may also be organized as support systems for action research (see Altrichter & Posch, 1998).

5 *Curiosity and "theoretical interests"*

Worthwhile ideas for starting points need not necessarily stem from one's own experiences (as in 1 and 2) or have been circulated by external agencies (as in 4). They may also derive from observing colleagues, from contacts with other fields of practice, or from print media or the Internet. You may be curious whether or not what works well with colleague X or has been found out by researcher Y also makes sense in your circumstances. You may be interested in better understanding other people's ideas and in putting them into your practice (Feldman, 1996). Such considerations, by the way, show that action research—even if concepts such as discrepancies, problems, and difficulties are often used in the initial phase of projects—is not just appropriate for "negative" and "problematic" situations. Rather, good ideas may be tested or strengths may be developed. All in all, action research is oriented toward improvement of practice and of understanding of practice situations.

Issues for action research

What kind of issue is an appropriate focus for action research? Broadly, any professional situation about which practitioners want to gain a deeper understanding, and that they want to change, is a potential starting point. The issues could relate to the work or context of an individual action researcher, or it could relate to issues that confront the entire institution or unit. Here are some examples of the former:

* A teacher investigated the ways that the use of email with her pupils added to and took away from her practice (see Chapter 9);
* A lecturer at a university researched the way that she taught students about race and racism (see Chapter 9);

- In a participatory action research project, a group of older people focused on the end-of-life issues in their locality for themselves and collectively (see Chapter 9);
- Social workers supported community-based action research to improve the well-being of families (see Chapter 9);
- A teacher engaged in a self-study of his use of constructivist pedagogy through a review of five years of feedback from his pupils (see Chapter 9);
- Nurses developed new ways to work with their patients in a variety of settings and studied the implementation of the methods and how it affected their practice (Jenkins et al., 2005).

These examples are drawn from a wide range of practice situations. They also demonstrate that action research studies can go beyond the technical aspects of practice to focus on interpersonal relations or other social issues, or even issues beyond the confines of the institution or unit, such as the establishment of productive relationships with parents, other family members, and the community.

As we noted above, action research can also tackle issues of institutional development:

- In Chapter 1, we referred to a school that developed as a result of collaboration between a number of teachers each focusing upon their own classroom, coordinated by a deputy head (Wakeman, 1986).
- A secondary teacher researched the processes of decision making and the operation of power in the school where she worked, drawing colleagues into collaboration in the process, first by eliciting their views in interviews and later by inviting them to contribute to redrafting the written report (Somekh, 2006a, Chapter 3).
- In a primary school, the team of teachers responsible for teaching the youngest children focused on the use of computers to support language development in their pupils, for the majority of whom English was a second language (Ourtilbour, 1991). Their collaborative action research resulted in changes in the school's policies and practice.
- A secondary teacher, responsible for coordinating colleagues' professional development in the use of computers as educational tools, carried out action research upon her own role in bringing about institutional development (Griffin, 1990).
- A police educator researched the implementation of a new strategy for the education of police managers (Adlam, 1999).
- A medical team did an action research study of an in-patient stroke service in a London teaching hospital (Kilbride, Meyer, Flatley, & Perry, 2005).

In general, institutional issues are more difficult to tackle than issues of individual practice. The practical, theoretical, and political problems of

action research tend to increase greatly when the focus moves beyond the classroom to institutional development. These can really only be tackled if the action researcher is already experienced, or if the action research is undertaken in the context of a project involving a number of practitioners from the same institution or school.

Finding starting points

Those who decide to engage in action research either have:

a   one very specific question in mind, often needing urgent attention;
b   many different questions in mind, none of which constitutes an obvi- ous starting point;
c   no concrete ideas from which to begin an investigation; or
d   a starting point that is defined by a larger project of which they are a part. This is often the case for projects funded by outside agencies (for example, Ashton et al., 1990; Feldman, 1995; Somekh, 2006a).

The suggestions and ideas below are especially intended for cases (b) and (c). However, they can also be useful for case (a) and (d), especially if someone is beginning action research for the first time and wants to check the feasibility of tackling a question by comparing it with alternative pos- sibilities. We have suggested the following approaches to practitioners with whom we have worked:

- Formulate more than one possible starting point.
- Consider all the potential starting points in relation to everyday prac- tice, over a period of time.
- Invest sufficient time to make the exploration of possible starting points as wide-ranging as possible.

The ease and speed with which a meaningful question is likely to be found is frequently miscalculated. Some time may be necessary before any sin- gle issue relating to an individual's professional practice emerges as the one of greatest importance and one that can be clearly formulated. The amount of time needed will differ from person to person and context to context. In action research courses run at universities that last for a semes- ter, the first two to four weeks are reserved for finding starting points. In action research projects[1] that we have facilitated and that lasted for two to three years, it was not unusual for a teacher to take over a semester to select his/her focus. Even within tightly scheduled projects there should be opportunities for individual variations in the amount of time spent on this important stage.

Your personal search for a starting point could be facilitated by the following exercises:

M4.1 Brainstorming: finding starting points

One step toward finding a starting point for your own action research could be individual or group brainstorming. Brainstorming is a structured activity that is typically done as part of a small group with the intention of coming up with new ideas or ways to solve problems (see M7.1). It can also result in the group increasing in motivation to accomplish its goals, and to come together better as a team. When the goal of brainstorming is to find starting points, it can be done using the following steps:

1   Agree on an objective for the brainstorming.
2   Individual group members follow a procedure that helps them to come up with ideas about how to reach the objective. This is usually limited to an agreed-upon time limit.
3   The group as a whole engages in a process of categorizing, condensing, and/or combining ideas to refine them. It is important that no idea is discarded without being considered carefully by the group as a whole.
4   The group follows an agreed-upon procedure to analyze, assess, and prioritize or rank the brainstormed ideas.
5   Select two or three ideas as possible starting points.

Brainstorming in a group can either result in a set of starting points for group collaborative action research, or the activity can be used to help the individuals in the group come up with their own starting points.

   Brainstorming can also be done individually rather than in a group setting. It follows the same steps, but is handicapped by not having the input and critique of others. We strongly encourage action researchers to have a critical friend who can provide feedback and critique about the ideas generated. Below we provide some suggestions about who to engage in individual brainstorming. In general, these questions and suggestions can also be used in group brainstorming by changing the "I" to the "we."

1   Think of your own practical experience:
   •   Is there any question that you have wanted to investigate for a long time already?
   •   Which of your strengths would you like to develop?

- Are there any aspects of your work that you find puzzling and that have already been a focus for your reflection?
- Are there any situations that cause difficulties and that you would like to cope with more effectively?

Let your thoughts flow freely and write down your first spontaneous associations in the form of catchwords. You might like to use your research journal to record these. Don't spend more than six to eight minutes!

2 Once you have recorded your initial ideas you may be able to stimulate further ideas for starting points by using these incomplete sentences (Kemmis & McTaggart, 1982, p. 18):

- I would like to improve the ...
- Some people (pupils/parents/patients/clients/family members/colleagues) are unhappy about ... What can I do to change the situation?
- I am perplexed by ...
- ... is a source of irritation. What can I do about it?
- If I ... I am completely worn out afterwards.
- Again and again I get angry about ...
- I have an idea I would like to try out in my practice.
- How can the experience of ... (recounted by a colleague, or found in my reading, etc.) be applied to ...?

3 If you have already started to keep your research journal, read through what you have written and see whether it generates additional ideas for starting points for action research.

4 You can enrich the formulation of your potential starting points—and at the same time carry out a first, provisional analysis of each situation—if you use these questions to identify the most important characteristics:

- What happens in this situation?
- Who does what?
- Which contextual factors are especially important in understanding this situation?

5 Try to condense the results of this brainstorming exercise by formulating a question for each possible starting point as precisely as possible.

M4.2 Giving consideration to several starting points[2]

We recommend that you do not make an immediate decision on a starting point, but instead keep several starting points in mind to

test their feasibility in the light of your everyday experience. You can do this in the following way: Take the list of possible starting points that you generated from the brainstorming exercise (M4.1) and select three to five situations that seem the most interesting to you. Write down on a card, or in a note that you can easily access on your digital device, the specific issue that interests you in each of these situations. See Figure 4.2.
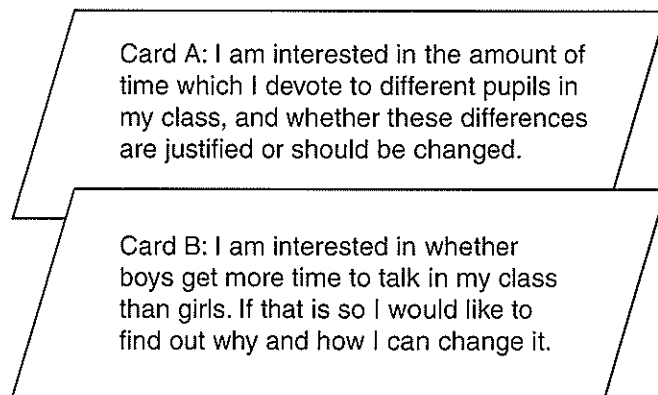
Card A: I am interested in the amount of time which I devote to different pupils in my class, and whether these differences are justified or should be changed.

Card B: I am interested in whether boys get more time to talk in my class than girls. If that is so I would like to find out why and how I can change it.

Figure 4.2 Issue cards (redrawn from *Developing Teaching*, 1984, p. 12).

At the end of each day over the next week take your cards and shuffle them, or randomly look at the notes on your device. Then take the first card or note, and for about three minutes reflect on the day and think about any events that seem relevant to the issue recorded on it. Write down your ideas in keywords either on the cards, the notes, or in your research journal. Afterwards spend a minute on each of the remaining cards or notes to think briefly about the other issues, possibly making brief notes in your journal.

M4.3 The photovoice metaphor

Photovoice is a research method that aims to capture a person's voice through photography and narrative. It was initially developed by Carolyn Wang (2006) as a tool for participatory action research. For more information about this method see M4.11. Michael DiCicco (2014) took Wang's method and modified it for his research to capture the beliefs of English education preservice teachers in order to identify how these individuals perceived the teaching of struggling

readers. Although he does not use the term, we call his method the *photovoice metaphor* to distinguish it from traditional photovoice.

In the photovoice metaphor method, action researchers respond to a question or questions about their practice. If they are part of a group, they might want to discuss those questions before the next step, which is to take photographs that answer the questions *metaphorically*. They then choose three of those photos and write a short explanation about how each answered the question. An important part of this method is that you do NOT take photographs of people.

DiCicco's reason why the goal of this method is to construct photographic metaphors in response to questions about practice is based on the work of Lakoff and Johnson (1980). They argue that metaphors are the ways in which people think, perceive, and act. To DiCicco, then, by making the metaphors explicit, the preservice teachers can come to better understand their preconceptions about their students.

We suggest that a photovoice metaphor question that you might want to begin with is: "What does it mean for me to be a [teacher, research assistant (RA), school leader, etc.]?" Go out and take photographs that best represent what it means to you to be a [teacher, RA, school leader, etc.], metaphorically. Again, the one catch is that you CANNOT take pictures of people. Choose three of those pictures and write a short paragraph for each photo explaining how it represents what it means about who you are in your practice. It is also possible to use photographs from existing sources, such as magazines or the Internet. While this may seem easier to do, especially for those who think they need to be artistic to take the photos, we believe that by taking them yourself, it gets you thinking more about your educational situation.

If you are part of an action research group, share your photos and paragraphs with your critical friends. You may want to use the analytic discourse to structure your discussion. If you are doing the action research by yourself, you may want to reflect on the meaning of the photos in your research notebook.

Approaches to choosing a starting point

How can I choose a starting point from the many interests and questions that come to mind in relation to my own practical experience? Are some starting points more or less suitable than others? How can I identify the more suitable ones?

M4.4 Choosing a starting point

You can examine the available starting points in the following way:

1   Remember that action research has a *developmental perspective*. Check your starting point against these questions:

- What is your focus for possible development?
- What might you want to try out?
- What might you want to change?

Doing action research does not mean that you have to change everything. Nevertheless, it is important that when you embark on action research you have a genuine interest in development. Sometimes the main change is in your perception of the situation rather than in adopting specific new strategies.

2   Look at the starting points that you have formulated so far in the light of the following criteria, and write brief notes to record for each the pluses and minuses of adopting it as your main action research focus.

a   *Scope for action* Does the situation come from my own field of experience? Can I really do something about this? Do I have any possibility of influencing this situation and/or taking action? Or am I too dependent on other people and institutional structures? Would an improvement in this situation depend primarily on changing the behavior of other people?

b   *Relevance* How important is this situation to me and to my professional concerns? Is this issue worth the effort in an educational, social, or health-related sense? Is it concerned with important values? Is it likely that this situation will still interest me in a few weeks' time? Am I willing to invest a certain amount of energy in dealing with this situation? Am I interested in this situation in order to change and improve something?

c   *Manageability* Do I have the time to cope with this? Are there too many preparatory or related tasks to be coped with before I can start this project? Will it make too many demands of me? When you begin action research don't choose a question that is "too big." When in doubt opt for the smaller or more limited project. In general, it is better to build on successes even if they are small rather than having to reduce one's aims because they prove impossible to fulfill. There may be time later to extend your work.

d *Compatibility* How compatible would this question be with the rest of my activities if I select it as my action research focus? Would it involve things that I have to do anyway? How well does this intended action research fit in with my forward planning? Would it be possible to build some action research activities directly into my practice (for example, pupils interviewing each other, group discussions, etc.)? If you are in doubt, decide on a starting point that fits thematically with those things you do anyway in your practice.

3 Now select the starting point that comes closest to these criteria. The result will not always be clear-cut, but sometimes may involve weighing up the advantages and disadvantages of two or three options. However, we believe that this process in itself can be an important help in identifying the question that best fits with your personal situation.

4 Next, try to document your starting point as vividly as possible in your research journal. Formulating your starting point for action research generally has four elements:

a *A short description of the situation* What happens in this situation? Who does what? Which contextual factors are especially important in understanding this situation?

b *Questions that indicate your action research interests* What do I want to find out? What issues or relationships do I want to understand more thoroughly? What questions about my teaching do I want to answer more clearly?

c *Questions that indicate the developmental interests* What would I like to try out? What would I like to change/improve? In what direction do I want to develop the situation in order to make it better for myself, the pupils, patients, or clients, and other parties involved?

d *What is my next step?* What do I want to do in order to better understand the situation? What action could help to develop the situation into the direction I aim for?

Although this may all sound rather complicated, it is in reality relatively simple. Here are some examples of starting points (adapted from Kemmis & McTaggart, 1982):

When they are doing group work the pupils seem to waste a lot of time (a). What exactly are they doing? What productive and unproductive activities are frequently to be observed? Are different groups behaving differently (b)? How can I increase the

amount of task-oriented time for pupils engaging in group work (c)? I want to talk to my colleague Cynthia who is said to run very stimulating and effective group work (d).

- My pupils are not satisfied with the methods I use to assess their work. What exactly do they complain about? What are the arguments? How can I improve assessment methods with their help? I want to ask my colleague Fred to interview some pupils in form 4.

- Most parents want to help their children and the school by supervising homework. What can we do to make their help more productive?

- My elderly mentally ill patients often fall in nursing homes. What do I need to know to prevent this?

M4.5 The "Gap:" making discrepancies explicit

Previously in this chapter we discussed how starting points for action research can originate from discrepancies in one's practice. However, often these discrepancies are tacit and therefore you need some way to bring them to the surface. This method is done with at least one other person whom you see as your "critical friend." A critical friend is someone who has empathy for your action research situation and can relate closely to your concerns, but at the same time is able to provide you with rich and honest feedback (M4.7). An even better way of doing this is with colleagues who are also engaged in action research with whom you take turns being the presenter.

1   Begin by doing a *freewrite* in which you explore the "gap" between how you would like to see yourself as a practitioner and the way you actually are. If you need to, look back in this chapter to the section on discrepancies to get some ideas of the type of gaps that there may be in your practice. The technique of free-writing was developed by Peter Elbow. He describes the process in this way:

> The idea is simply to write for ten minutes (later on, perhaps fifteen or twenty). Don't stop for anything. Go quickly without rushing. Never stop to look back, to cross something out, to wonder how to spell something, to wonder what word or thought to use, or to think about what you are doing. If you can't think of a word or a spelling, just use a squiggle or else write "I can't think what to say, I can't think what to say" as

> many times as you want; or repeat the last word you wrote over and over again; or anything else. The only requirement is that you never stop.
>
> (Elbow, 1998, p. 1)

The gap activity is an example of what Elbow calls a "directed freewrite." What this means is that rather than being able to write about anything that comes to your mind, you are asked to restrict yourself to a particular topic or area, which, in this case, is your practice. As a result, you may find yourself in the position in which you "can't think what to say." If you find yourself running out of things to talk about, remember that you know much more about your practice than the people you are sharing your thoughts with (your critical friend or others in your collaborative action research group). Therefore, if you run out of things to write about in reference to your gap, you can always provide details about your practice situation.

2   Tell your critical friend or collaborative action research group about your "gap." Take no less than five minutes to tell your friend/the others what you wrote. You do not need to read out loud what you wrote; feel free to tell the story of your gap. If you find that you haven't used at least five minutes, fill the time by describing the details of your practice situation. You should not be interrupted when you are doing your telling. Once the five minutes are up, your critical friend or members of your collaborative action research group should question you about the gap in your practice. Use the rules of "analytic discourse" (M4.6): only ask questions, do not make suggestions, and make sure that the questions are not suggestions in disguise.
3   Have someone else in the group or your critical friend (if he or she is also engaged in action research) take a turn telling about the gap in their practice and answering questions about it.
4   Be sure to make a memo about the gap activity in your research journal.

Clarifying the starting point of research

In the first part of this chapter, we provided some insights and methods for finding a starting point for your action research. One can think of a starting point as the *first impression* or the *first interpretation* of your practice situation. In this part of the chapter, we turn to some methods and their theoretical bases for clarifying your starting point. By this we mean delving more deeply into your situation and your concerns to better understand how to

engage in action research to improve your practice and situation, and to gain a better understanding of it that you can share with others.

Before we take a look at the various ways that you can clarify your starting point we would like to offer some suggestions and caveats that have arisen from our own practice of action research:

1   It is important to engage consciously in clarifying the starting point but at the same time its importance should not be exaggerated. After all, clarifying the situation is the task of the whole research process: if we aimed for absolute clarity about all aspects of a situation before beginning, we would never start at all. "The process of analysis is an endless one, but in action research it must be interrupted for the sake of action. And the point of interruption should be when one has sufficient confidence in the hypotheses to allow them to guide action" (Elliott, 1991, p. 175).

2   The time needed for clarifying the situation can vary considerably. It will depend on the complexity of the problem to be investigated, the researcher's prior experience and depth of reflection, the accessibility of crucial information, the relative ease with which explanatory patterns and theories emerge, etc. There is a comforting rule of thumb: the total time needed in research for clarifying the situation will always be nearly the same—if you take less time in the earlier stages, you will have to invest more time later on, and vice versa.

3   Even if a lot of effort is invested in clarifying the situation in considerable depth in the early phases of action research, understanding will change during the process of further research—not because the initial understanding was "wrong" but because this is an outcome of the process. The researching practitioner is not merely interested in confirming insights once they are gained, but in further development in depth and analysis of understanding. All actions—those that are primarily to do with one's practice and those that relate to the research itself—can open new insights, no matter whether they happen at the beginning or the end of the process. To neglect and discount these insights—as sometimes happens in academic research aimed at confirming or refuting initial hypotheses—is not sensible for the practitioner. Unexamined problems will come back sooner or later and waste the time and energy of teacher and pupils, nurse and patients, and social worker and clients.

4   Sometimes, clarifying the situation is the single most important result of the research. For example, for one teacher, a recorded interview with an apparently difficult pupil led to clearing up a misunderstanding and seeing the pupil in quite a new light. Because of seeing her in a new light the relationship between the teacher and the pupil became more relaxed; that in turn changed the way the teacher treated the

pupil. In this case, the situation changed at the time of clarifying the situation, because interview data enabled the teacher to see the pupil differently. There was no need for a systematic testing of new strategies of action.

From the "first impression"

Jonathan Haraty was a teacher at the SAGE School located in an urban area in the US. SAGE is a collaboration between the local school district (local education authority), the Department of Youth Services, and a local post-secondary institution. The school was founded to serve pupils charged with crimes or on probation. The primary objective of the school is to modify behaviors so that the pupils attend school and do not return to the court system. Jonathan chose to teach in this school because he wanted to help the pupils to be successful in school and in life. To do so, he believes that he must treat each of his pupils as an individual.

Jonathan began his action research study by writing a "slice of life" (M2.2) about an incident that occurred in one of his classes:

> *Today one of my middle school students, Natalie, asked me why I was not making her work up to her potential ... She stated that her mother had looked over her schoolwork and felt that she had already done this in previous grades. She went on to state that she was beginning to get bored and that when this happened, she generally stopped coming to school.*

He elaborated on this in his action research report. He wrote that this exchange with Natalie led him to think about whether:

> *I was reaching all my pupils at their intellectual level or whether I was gearing my classes towards those pupils who need the remedial work and pace. I started looking at my pupils in this class, and the other three science classes that I teach, looking for pupils that I may not be allowing to reach their full potential by placing them with the rest of the class. I noticed several pupils who have always completed the assigned work, and were getting very good grades, seemed to be looking out the windows a lot or were distracting other pupils.*

He decided that he would use a simple, open-ended survey with all of his pupils to identify who felt they were not moving fast enough in the class. Using the responses to the survey and his observations, he would then select several pupils to do a personal interview. He also decided to interview a pupil from the preceding year who was currently enrolled in community college.

Jonathan learned from his data that rather than treating every pupil as an individual, he had assumed that all of his pupils needed remedial work and had directed his teaching at that level. He also saw that rather than helping his pupils succeed in school, his teaching methods may actually have caused some of them

to drop out. He also found that there were pupils who would welcome extra work. One pupil said it would make him feel good because it would mean he was on top of the class. Another told Jonathan that he would feel important. A third said that she wouldn't mind the extra work "because that just means that I am improving."

Jonathan found his interview of a pupil who had already graduated the most insightful:

> *When asked in the interview if he would have done more work, or different work from the class, he stated, "Don't you remember? You gave me more work that allowed me to go at a faster pace than the rest of the class. Sometimes I resented it, but now that I'm in college, it helped."*

This interview triggered a new interpretation of his educational situation and made him look at what had changed in the last year. The major change was that in addition to enrolling pupils in the court system, SAGE had begun to admit pupils who had documented learning disabilities. In response to this new population, Jonathan was told to focus on "reading and writing across the curriculum." In the past years, he was able to differentiate his instruction because he focused on what he knew how to do—teach science. The new task to teach reading and writing to pupils with learning disabilities, for which he lacked the skills, now appeared to be the main reason why he taught all the pupils the same way and targeted his instruction toward those who were most needy.

One of Jonathan's first impressions was that he had somehow for some reason abandoned the "better" pupil in his classes. It was not until he further investigated his situation that he began to take into account the changes in the make-up of the pupils and the change in curricular emphasis in his school. We believe that there are at least three points in Jonathan's action research that are of special interest. The first one is so obvious that it is easily overlooked: what we think about an issue and what we do or say may not be wholly consistent. For instance, in this example, Jonathan was not aware that he was treating all of his pupils as if they needed remediation, which conflicted with his belief that he should differentiate his instruction based on the needs and abilities of his pupils.

The second point is closely related to the first: what we intend by what we say and do can be interpreted quite differently by our pupils, patients, or clients. The fact that our intentions and actions affect others only via their perceptions and interpretations can lead to problems when we change our practice. Jonathan implemented new methods that he hoped would help the pupils with learning disabilities to better their reading and writing skills. However, his new way of teaching was interpreted by the "better pupils" to be below their abilities and uninteresting, which led to them being turned off from school. The introduction of new practices presupposes a change in the routine perceptions and

actions of teachers and pupils, nurses and patients, and social workers and clients. This is often a long-term process in that all the participants have to become conscious of the new roles, explore them, and test their reliability.

The third point arising from Jonathan's action research study is that our first interpretation of a situation does not always get to the heart of the matter, even if it sounds plausible and even if new strategies for action can be derived from it, as illustrated in the example above. Jonathan's first interpretation of his situation was based on his discovery of a dissonance in his practice—he wanted to treat students as an individual but instead was treating all of them as if they needed remediation. Our first impression often relies on familiar assumptions and long-standing prejudices. Jonathan was interpreting what was happening in his class and with his students as if they were a self-contained unit, unaffected by factors outside of their control. In Jonathan's situation, his first interpretation did not take into account a major shift in the focus of his school from serving students with a wide range of abilities who had gotten into trouble with the law to serving students with learning disabilities. If we want to bring about improvements in practice situations it is important to test the quality of the first impression in order to establish a sound basis for development, both within our immediate situation and how it fits within the broader perspective. Answering the following questions can achieve this:

I Does the first impression neglect any existing information?

The first impression often gives a plausible picture because we use data selectively and ignore information that contradicts or deviates from our view of the situation. Jonathan's first impression—that he had somehow for some reason abandoned the "better" pupils in his classes—ignored the fact that the nature of the pupil body had changed and that the school's administration had made a major change in the curriculum. By ignoring the larger context in his first impression, Jonathan saw the problem as his personal professional failure, rather than the result of being asked to do something for which he was ill-prepared.

2 Does the first impression contain any vague, ambiguous concepts?

Often the initial interpretation uses concepts whose ambiguity may have been a contributory factor to the problem. Jonathan changed his practice when the school administration told him that he must teach "reading and writing across the curriculum." The phrase was originally used to describe a particular way of infusing the teaching of literacy

skills into all subject areas, not just language arts. However, by the time that Jonathan was told to do it, it had lost most of its meaning and had become an empty slogan. Because he had no knowledge of what it originally referred to, and because he knew little about how to teach reading and writing, he acted upon the administration's request in a simplistic manner—he had the pupils take turns reading from their textbook. Clearly, the vagueness of the meaning of "reading and writing across the curriculum" contributed to Jonathan's first impression of what was happening in his classes.

3 Does the first impression deal only with the surface symptoms of the situation?

The first interpretation of a situation sometimes consists of a detailed description of diverse events and actions without uncovering or explaining their underlying implications. One could say that such a representation sets out the surface symptoms but does not progress to an in-depth interpretation. Surface symptoms comprise all observations and empirical generalizations that refer directly to the problem, for example: "I don't challenge my students to work hard." An in-depth interpretation puts forward a broad pattern of interpretation that appears to explain different phenomena and relate them to each other. For example, "The change in the student body and the change in the administration's expectations of teachers requires Jonathan to have skills and knowledge that he is missing for him to successfully differentiate instruction." Both levels are connected with each other: in order to grasp a problem fully, an in-depth interpretation is essential because it reveals the interconnections between different factors in a situation—often it is not the event itself that creates a problem but the interpretations and tacit assumptions that individuals bring to the event.

4 Has the first impression been accepted without testing it against other competing interpretations?

Jonathan's action research study illustrates this question quite clearly. The first impression, fed by tacit assumptions and previous experiences, provides a seemingly plausible interpretation—that his failure to make all his pupils work up to their potential was due to his failure to recognize their needs. This interpretation is neither doubted nor questioned in the light of possible alternatives. Prime among them is the effects on his teaching of the change in the make-up of the pupil body and the school administration's call for him to change his teaching in ways that were not clearly defined and for which he had little or no training.

Facing problems and dealing with discrepancies between plans and their implementation in practice is not pleasant. We tend to try to forget

about them as soon as possible. By confronting first impressions with alternative interpretations, action research slows down the process of problem resolution. This in turn increases the chances of more reliable interpretations that can be used as a basis for improving practice.

Clarifying the starting point through reconnaissance

In one of Kurt Lewin's earliest writings on action research, he described the steps that we now associate with the cycle of action research (Lewin, 1946). According to Lewin, one begins with a general idea, what we have called the starting point. However, as Lewin noted, the starting point and how to reach its desirable objective is usually not clear. To clarify the starting point, he suggested that the action researcher engage in fact-finding or reconnaissance. Reconnaissance, according to Lewin, has four functions. First, it ought to evaluate any possible actions taken by the practitioner. Second, by gathering information, one can gain insight into the strengths and weaknesses of the starting point. This then can serve as the basis for the third function—modifying the starting point. Finally, it serves as a foundation for the overall action research plan.

Reconnaissance can be used to clarify the starting point by using the following processes:

- The action researcher tries to get access to additional knowledge and to use it for reflection.
- The first impression or initial formulation of the starting point is questioned by this additional knowledge and refined, extended, or changed.

As we do this, we are again going through what we call a mini-action research cycle. This can be seen in the example at the beginning of this chapter, in which Jonathan gained access to additional information on the starting point from his pupils. The information from these interviews served to question his interpretation of the situation and suggested an alternative meaning. Besides interviews there are a number of other ways of tapping additional knowledge, including activating tacit knowledge; collecting additional information; collecting views on similar situations from non-participants; and experimenting by introducing changes in existing situations. We look at each of these below.

Activating tacit knowledge

A fundamental aspect of being human is that as we live our lives, we learn as we experience the world (Lave & Wenger, 1991). However, we are not always aware of what we have learned or know (see Chapter 10). Because

in many ways, as action researchers, we are our own primary research instrument, it is important for us to make knowledge, such as the routine actions and assumptions that develop through our lived experience, accessible to reconnaissance and self-reflection. That is, we need to find ways to make what is called tacit knowledge (Polanyi, 1962) explicit. Tacit knowledge consists of "all those things that we know how to do but perhaps do not know how to explain (at least symbolically) ... Tacit knowledge is messy, difficult to study, regarded as being of negligible epistemic worth" (London School of Economics, 2010, p. 1). To Polanyi, tacit knowledge is a type of knowledge that cannot be expressed in the form of propositions (language) or mathematically, and therefore one can only see it in action. There are many examples of tacit knowledge, including knowing how to tie a knot or hit a baseball, or even recognizing someone's face. However, much of what we know tacitly can be made explicit because, as Polanyi wrote, "the aim of a skillful performance is achieved by the observance of a set of rules which are not known as such to the person following them" (Polanyi, 1958, p. 49). There are a number of methods that we can use to activate this tacit knowledge:

- *Activating tacit knowledge by journal writing and review of journal entries.* The act of writing memos and other types of journal entries can in itself make tacit knowledge explicit (see Chapter 2). As Mary Lou Holly wrote:

> Writing about experience enables the author to view his/her experiences within broader contexts: social, political, economic and educational ... Writing taps tacit knowledge; it brings into awareness that which we sensed but could not explain.
>
> (Holly, 1989, p. 75)

In addition, when we read what we have written, we have the opportunity to view it as an outsider and to see the text as describing what has happened to others. Patterns that we were not aware of become distinct in the text, and assumptions are made problematic. By writing, and reading what we have written, we construct and reconstruct our experience (Holly, 1989). In this way, writing in journals and examining what we wrote is a form of reconnaissance that can help us to formulate new interpretations and cross-links that we missed in the first impression of the situation.

- *Activating tacit knowledge by conversations.* Recounting events in our practice by telling others about them as a narrative or story facilitates introspection because we have to order our experiences before we can tell someone about them. It helps to clarify the situation further

if the listeners can contribute actively to generating the narrative, for example, by posing questions, asking for additional information, and reflecting back to the narrator their provisional understanding of the situation. The analytic discourse (M4.6) tries to create such a conversational situation by means of a few simple rules. Another method is the combination of sharing stories and questioning called *enhanced normal practice* (Feldman, 1996). When practitioners engage in enhanced normal practice they tell brief stories about their work. The others in the group hear and listen to the storyteller, and respond with their own stories or with questions. There are generally three types of responses: other stories; questions about the details of what was described or explained in the story; and more critical questions that ask "Why?" as well as "What, where, how, and when?" When practitioners share stories about their work with one another in this way, there is an oral exchange and generation of knowledge and understanding by the recounting and questioning of some event or explanation of one's understanding to others. A conversation with a critical friend (M4.7) is useful in a similar way for teachers who do not have access to a group of colleagues engaged in collaborative action research, lesson study (Lewis, Perry, & Murata, 2006), or as part of a professional learning community (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006).

- *Activating tacit knowledge by being interviewed.* Conversations are two-way, democratic exchanges among peers (Feldman, 1999). In an interview, one person is in the role of interviewer—the question asker—while the other person has the role of interviewee—the answerer. There is also the expectation that the interview results in information transfer from the interviewee to the interviewer. Therefore, in most situations, interviews are a one-exchange. In addition, in many cases, there is hierarchal difference where the interviewer is in a position of power relative to the interviewee because the former is in charge of the exchange through the control of the questioning process. This can be changed by simply having the interviewee be the one who develops the interview protocol and recruits the interviewer, often a critical friend, to ask the questions. This then becomes a form of reconnaissance in which the action researcher examines and reflects on what he or she said in response to the questions. We suggest that the interview be done as a semi-structured interview, in which there is an initial set of questions that can be modified and expanded as the interview progresses.
- *Activating tacit knowledge by ordering conscious knowledge.* Tacit knowledge is usually contrasted with explicit knowledge, which is knowledge that can be expressed in words, symbols, or numbers. We prefer instead to use the term conscious knowledge to make clear that an

individual's personal or professional knowledge has value, even though it has not been codified or even articulated. There are a variety of different ways that we can order our conscious knowledge to activate our tacit knowledge. For example, by generating graphic representations of our knowledge we can often formulate existing experience more completely and identify blank spots in our awareness (M4.9). We can also take observations and descriptions and organize them into a story (M4.10), or construct a story from photographs of our practice situations (M4.11). In M4.12, we suggest a method for making assumptions and categories explicit and using them to generate hypotheses about your practice. Each of these Ms serves as a form of reconnaissance to help to clarify the starting point.

- *Activating tacit knowledge by reading one's own actions.* Reading an action implies that there is a kind of knowledge embedded in action that has been previously ignored. The following example is from Allan's study of his action research class:

> *I structure the course so that there are two parallel strands. One is a focus on the literature about and theory of action research. I have my students read articles about the nature of research, different approaches to practitioner research, critical theory, and ethical issues related to doing research on one's practice. The other focus is the practice of action research. I have the students go through the processes that we lay out in this book from finding and clarifying a starting point to data collection and analysis, and finally making their action research public to their peers. The class meets once per week in the evenings for just less than three hours. My intention had been to have half of each session focus on each of the two strands, but I felt uneasy about how things were going. Looking back on the reflective notes that I kept I realized that the time spent on theory, in which I took center stage, often went more than half of the class, leaving little time for the students to collaborate with one another on the practice of action research. Clearly my actions did not match my intended aims. I decided to switch the agenda for each class meeting so that the practical part preceded the part that focused on theory. That way the students would always have time to engage with one another in collaborative action research.*

In this example, by reading his actions, Allan came to see that although he wanted his classes to have a significant amount of time for students to engage in the practice of action research, he was acting in ways that were consistent with the norms of a university course in which the instructor is the "font of knowledge." Through his reconnaissance he was able to reject the familiar meaning and aims that we normally associate with a university course.

Two other ways to read one's actions are to revisit an action as if it were something strange and exotic, pretending to know nothing in order to know better, and to imagine that your actions are the answer to some unvoiced question. This can be done by asking yourself, "What question am I answering through my actions?"

Sometimes, teachers and other practitioners formulate starting points and state aims that are contrary to their deeply rooted practices. This contradiction remains undiscovered if the knowledge hidden in action does not become conscious. In such cases, new action strategies to improve a situation (for example, a new plan for storing resources, or a new strategy for improving the way groups report back to each other) cannot easily be put into practice because of their tacit contradiction with established routines of action.

Collecting additional information that is available in the situation

One possible way of testing our knowledge of a situation we want to improve and develop is to obtain additional information—perhaps by carrying out an observation or by interviewing other people involved. The whole inventory of data collection methods can be used for this purpose (see Chapter 5).

Collecting views on similar situations from non-participants

To discover alternative interpretations of your practice situation we suggest you:

- ask colleagues about similar situations;
- read relevant books and articles in magazines and journals.

Other people's views can provide starting points for our own reflection, helping to actuate our tacit knowledge, or stimulate us to collect additional information. It is important to remain clear that such explanations are hypothetical, providing stimuli for research and development rather than replacing them. It is also important to remember that we are rarely the first person to be in the situation that we are investigating. The research, professional and practitioner books and journals, can be important sources of alternative interpretations. It is also important to remember that just because that information is published, it does not necessarily carry more weight for the interpretation of your situation than ones that you develop yourself or with your colleagues.

Clarifying the starting point by introducing changes in existing situations

The detective Sam Spade said, "My way of learning is to heave a wild and unpredictable monkey-wrench into the machinery. It's all right with me, if you're sure none of the flying pieces will hurt you" (Hammet, 1989). Kurt Lewin, one of the originators of action research, suggested a somewhat less destructive way of understanding practice situations: "One of the best ways to understand the world is to try to change it" (quoted in Argryis, Putnam, & Smith, 1985). By introducing changes, trying out new actions and observing their results, our view of the situation in which we find ourselves is often deepened. We provide information and suggestions for trying out this strategy in Chapter 7.

Clarifying the starting point through the elaboration of practical theories

Before introducing methods and exercises for clarifying the starting point we look at one of the ways in which this can be done—through the articulation of a practical theory of the situation to be studied. A practical theory is a conceptual structure or vision that helps provide practitioners with reasons and explanations for actions (Sanders & McCutcheon, 1986). They can be thought of as rules-of-thumb based on experience and consisting of "a repertoire of practices, strategies, and ideas" that help practitioners incorporate into their work their best practices and those of others (Nussbaum, 1986, p. 50).

Handal and Lauvås (1987, p. 9) defined practical theories as "a person's private, integrated but ever-changing system of knowledge, experience and values which is relevant to teaching practice at any particular time." They are "shaped by life experience, professional experiences, the stories of others, and reflection on personal experiences and the experiences of others" (Feldman, 2000, pp. 610–611). To John Elliott, practical theories are "developed within practice situations in which judgment needs to be exercised ... [and arise] in the context of action, where the practitioner is attempting to understand a practical situation s(he) experiences to be unsatisfactory" (Elliott, 2005b, p. 5). All practitioners enter their practice situation, for example a classroom, with a set of practical theories that have arisen from these types of everyday experiences, or through thoughtful inquiry like action research. (See Chapter 10 for more about practical theories.)

Individual elements of practical theories and their interrelationships

The articulation of practical theories and the clarification of the starting point happen together. For example, the clarification is attempted by

formulating individual elements of the practical theory and the connections among those elements.

I Elaborating the context of our practice situation

Practical theories are highly contextual. Making them explicit can help to clarify the starting point for our action research. However, that requires us to describe and elaborate the context of our practice situation. To do so, we first try to identify the most important individual elements of the situation, to distinguish them from less important elements, and describe them as vividly as possible. We can do this by asking:

- What is happening in this situation?
- Which events, actions, and features of the situation are important?
- Which people are involved, in what kind of activities?

Let us try to illustrate the process of elaborating a situation by an example. A possible starting point for the research could be:
  Pupils seem to be very noisy during discussions in class. How can I organize the discussion so that it is less noisy?
  The starting point begins with a statement that describes the situation (M4.3). We can now investigate this more carefully:

- *Which pupils are noisy?*
- *What are they doing when they are noisy?*
- *Does their noisiness result from taking part in the discussion or from something else?*
- *Why does it matter if they are noisy?*
- *How can I define exactly what I mean by "noisy"?*
- *Is there a particular time of day or environment when discussion is noisier than at other times or in other places?*
- *How do I respond when they are noisy in discussions? Do different responses from me have different effects on them?*

When we formulate important individual elements of the practical theory we should not restrict ourselves to what happened in the immediate situation, but also take account of the broader context. Action research doesn't take place in a laboratory in which the researcher controls most of the context. For example, nurses work with real patients in hospitals, hospices, and elsewhere. Their own actions are embedded in a framework of other people's interests and actions. Their action research activities in turn have consequences for others. Guiding questions for clarifying the context could be:

- Which other people are affected by my action research activities?
- Whom do I need to consult to ensure that I have freedom to act with the greatest possibility of success?
- Which features of the institution in which I work are likely to have an influence on the question I want to investigate?
- What are the broad social and political determinants that I need to take into account in relation to my question?
- What ethical issues ought I consider?

2 Formulating the connections among elements of the practical theory

The answers to the questions above lead to the second area that needs to be addressed in clarifying the starting point: we are not only interested in single features of the situation, but also in the connections among them. We need to engage in analysis (identifying the constituent parts), and also in synthesis (drawing threads together). The point is that we need to become aware of our practical theories that make connections among individual elements, and of how they influence our interpretation of the situation:

- How does this situation come about?
- What important connections are there among events, contextual factors, the actions of individuals, and other elements of this situation?
- What is my initial, instinctive personal interpretation of this situation?

On the basis of these questions it is possible to formulate statements of this kind:

- If a nurse assesses patients solely through asking them questions from a standard form, he or she may miss other important cues from the patient (Meyer & Bridges, 1998).
- If a teacher tends to follow up the answer to a question with a supplementary question, pupils will tend to refuse to answer questions even if they are sure of the answer.
- The finite amount of staff available in an emergency department means that the busier the department becomes, the harder it is to give proper, individualized care to all patients (Meyer & Bridges, 1998).
- The greater the expectation in a school that well-disciplined classrooms should be quiet places, the more difficult it will be to conduct classroom discussions without giving rise to discipline problems.

Sentences like these establish connections among individual elements of a situation (for example, between the teacher's comments and the level of the pupils' participation in a discussion); and they put forward a possible explanation for these connections.

In scientific literature, such statements are usually called *hypotheses*, and this term is useful in action research as well. Hypotheses can be used to express aspects of someone's practical knowledge (see Chapter 10). It is important to be clear about their nature:

- A hypothesis is a statement that is based on a possible explanation that ties the elements together. The second example above ties together the asking of supplementary questions with pupils' reluctance to answer any question. In generating a hypothesis, it is important to have some reason for thinking that the elements are connected in this way. In this case, it may be that pupils usually volunteer to answer questions to which they know the answers. If they are required to respond to an unexpected follow-up question for which they may not know the answer, they may feel "stupid" in front of their classmates.
- A hypothesis does not have to be correct. The term itself implies that the explanation is tentative and needs to be tested against experience or evidence.
- A hypothesis throws light on only one aspect of a complex situation, rather than the whole situation. As hypotheses are derived from specific situations, even when they have been verified they will still need to be re-examined in new situations (see Cronbach, 1975).
- A hypothesis tells us about the relationship among specific features of the situation and actions or events that result from them. Therefore, they can be used as a basis for planning future action (see Chapter 7).

Commonly held views that influence our practical theories

In our experience, there are some commonly held views that influence practical theories about what happens in our practice situations. These views are like glasses that we look through without being aware of them. Of course, it is not possible for any human being to do without these glasses: for example, we are all influenced by theories and explanations prevalent in our time, as well as the cultural milieu in which we are immersed. However, it is a good idea to try to identify some of these "glasses" and the unconscious influence they exert on the way we interpret situations. When clarifying the starting point, we suggest that it is important to try to become more conscious of these hidden attitudes, preconceptions, and social and cultural forces. Useful questions to ask yourself include:

- Could things have been different?
- Can I interpret this situation in another way?
- What assumptions am I making as I try to understand the situation?

We want to go on now to describe some of these commonly held views in order to illustrate our point.

Positive and negative influences

Most of us think of negative factors first when we try to explain and understand our practice situations. Early analysis tends to focus on negative experiences, often because the starting point has been chosen in response to an undesirable experience. But a focus on just the negative influences can prevent us from seeing the situation clearly.

First, it is important to take into account the positive aspects of the experience because they offer possibilities for positive action and improvement. One way of getting a better overview is to make a table placing these positive and negative influences side by side for comparison. Second, the distinction between positive and negative influences is useful for another reason: often on closer inspection it turns out that something that on the surface seems to cause problems is a hidden opportunity. Here is an example from a teacher's action research:

> After a serious conflict with his class in which the teacher became verbally aggressive, he asked his pupils to write about their perceptions of the event. Their writing gave a very negative view of what had happened and of the teacher's use of words that the teacher found to be insulting.
>
> (Schindler, 1993)

When you read this your attention may be drawn to the negative points of the situation. However, on closer inspection, you may find some positive points: for example, only in a relationship in which there is a lot of trust would the pupils dare to express such open and emotional criticism. This example reminds us of the situation in the movie *The Class* (*Entre Les Murs*) in which a teacher's use of "insulting" words resulted in a crisis with no good resolution (Cantet, 2008) because of the erosion of trust.

Another example comes from the work of nurses:

> In the reflective group, the nurses on the ward expressed difficulty in looking after older patients with impairments in cognition (e.g. dementia) and/or communication, and shared how hard this type of work was. In my observations, I too had noticed the tendency for these nurses to prioritize the delivery of physical over psychosocial care.
>
> (Bridges, Meyer, & Glynn, 2001)

While the nurses felt negatively about aspects of their work and this perhaps led to a tendency to avoid these aspects in practice, their willingness to discuss this in a reflective group and explore how they could improve the care they delivered is very positive.

There are many instances in our practices in which the glass could be seen as half-full or half-empty. As you use the methods for clarifying the

starting point found at the end of this chapter, think about whether you are viewing the situation from a positive or a negative perspective, and try to find an explanation that reverses your view.

The practitioner as originator or pawn

Richard DeCharms (1973) distinguished between two opposing self-images that people can hold. There are the originators who see themselves as responsible for their own actions, and there are the pawns who see themselves moved by powerful hands. Action research encourages researching practitioners to develop strategies for action to improve their situations. In doing so, it encourages them to develop a self-image as originator. This needs to be balanced by an understanding that human situations are conditioned by multiple forces and cannot be fully controlled by anyone. To achieve this balance, it is useful to pose some critical questions:

- What possibilities for action are there in different situations?
- In what situations do I feel confident to effect change?
- In which situations am I mainly dependent in my actions on other people?
- What social or cultural forces affect my practice?

Many people see themselves as dependent on external forces and underestimate the contribution they can make to the situation. For these people action research tends to challenge their self-concept, inviting them to explore possibilities for action and encouraging them to show greater autonomy.

There are also others who act like pawns because they believe that their practice is so constrained that they cannot make any changes in their actions. While there are many real constraints, such as regulations, laws, and ethics, there are many that are myths (Tobin & McRobbie, 1996). These mythical constraints are often in the form of expectations or obligations to behave in certain ways. One way to separate real from mythical constraints is to ask yourself what you would do if there were no barriers to your practice. In doing so, you can isolate the constraints and test their veracity.

A causal or a systemic view

Another approach that elaborates on these ideas is helpful in clarifying the starting point. Positive and negative influences are not seen as separate, but stand in either a causal or a systemic relationship to each other.

CAUSAL RELATIONSHIPS

The *causal relationship* needs little explanation. A is the cause of B. Pupil X disrupts the lesson because she knows that this gives her status with her classmates. Patient Y refuses to watch his diet because he is only concerned with the pleasures of the moment and not with long-term effects on his health.

The advantage of causal interpretations is that they suggest definite reasons and apparently simplify the complexity of a situation. They also help us to place a moral interpretation on events by assigning guilt (to the pupil, a colleague, the parents, or ourselves). However, causal interpretations have their problems. One is that situations are usually caused by a number of contributing factors. For example, a pupil's bad behavior might be traced back to preceding events involving other pupils, parents, and two or three teachers. Her behavior can therefore be regarded partly as a reaction to other, preceding events. This is not an argument against causal interpretations, but it does mean that we must be careful not to settle quickly for one that is too simple because each cause may itself have layers of further causes.

Let's take the case of a young teacher taking a new class for the first time. She will be a bit nervous and, either instinctively or consciously, wants to win the pupils over and gain control. This purpose will be expressed in her behavior. Let's look at the pupils: they sit tensely, perhaps rather skeptical, keyed up, and interested in holding their own against the teacher, individually and as a group. This purpose will be expressed in their behavior. At the same time, they will watch every action of the teacher closely and their interpretations of her behavior will influence their own behavior.

The noisiness of some pupils is interpreted by the teacher as a threat to her control of the class. The pupils notice the irresolute appearance of the teacher and it makes them feel insecure. Is the pupils' noisiness caused by the wavering appearance of the teacher or vice versa? This question cannot be answered, as there is some evidence for both possibilities. Looked at from the pupils' point of view the first answer will be more plausible, looked at from the teacher's the second will be more plausible. As it is impossible to know whether the noisiness or the wavering came first we cannot tell which should be regarded as the cause of the other. If we identify a cause, it will be arbitrary.

The systemic view

What happens if we decide that there is no point in searching for causes and the people responsible? An alternative is the *systemic view* (see Selvini-Palazzoli, Boscolo, Cecchin, & Prata, 1978). According to this view a practice situation is regarded as a system in that each participant (for example, the teacher, pupils, parents, and administrators or nurses, patients, family

members, and doctors) has a relationship to one another. Each person influences the other members and is influenced by them. A change in the behavior of one member leads to a change in the whole system.

Every kind of behavior can be regarded as both the result of feedback from the behavior of others and an influence on their further behavior. Even "non-behavior" (for example, the silence of classmates when one pupil disturbs the lesson) can in this sense be seen as information for the "troublemaker," the teacher, and the pupils.

A system is a network of mutual relationships (expectations, kinds of behavior, perceptions) in which the practitioner is caught up. It is easier to understand if we imagine the network consisting of threads that are alive. A particular action of a social worker is dynamically connected to the network so that he both is affected by all its threads and influences them. But there is limited room for each thread to move if the network is not to be destroyed. There are longer and shorter threads and there are knots in the network. These are the points at which threads intersect. Therefore, an occurrence in one's practice originates from the whole network even if some parts of the network play a more important role than others. An extreme example of this happened in the health care system in the US. Nurses and other health care professionals joined with their patients to call for greater patient rights. The main thrust of this was to provide information to patients and their families so that they could make knowledgeable decisions about their care rather than leaving it entirely in the hands of doctors and, in more recent years, health maintenance organizations (HMOs). A totally unexpected side effect of the success of this movement was that pharmaceutical companies began to market directly to patients rather than doctors because the patients now had a say in their care. Residents of the US are now bombarded by advertisements from the pharmaceutical companies that provide them with the "information" that they need to make decisions about their health care.

What can we learn from the systemic view? It enables us to ask new questions. Not questions that search for causes of events and attribute blame, but questions like:

- Which threads (for example, other pupils' and the teacher's expectations) contribute to the event (for example, a pupil's disruptive action)?
- What is the function of a pupil's disruptive behavior for other pupils (and for the teacher)?
- Which are the sensitive spots (knots where many threads meet) in the event?

The systemic view also has another advantage: it can help us to arrive at a less emotional, more detached and, therefore, probably also fairer approach to situations in class, because it broadens our view beyond

immediate, concrete causes. The interdependence of the elements in a system leads to a kind of balance (the tension of the net) to which the quiet pupils as well as the troublemakers contribute. The actions of a troublemaker can cause the "normality" of the "good" pupils and vice versa (thus, many teachers have noticed that when a disruptive pupil leaves the class another will often emerge to take his/her place).

If we pursue this perspective it can also offer suggestions for action. In any situation, the system is kept in balance by feedback from its interacting elements (participants in the practice situation). However, this feedback can also change the system. This means, for example, that it is important to know what feedback (from other pupils or the teacher) reinforces a "troublemaker" and what does not (it may be that any form of attention acts to reinforce the bad behavior). We can start to solve the problem by influencing the nature of the feedback (for example, by giving other pupils a chance to express their opinions or by the teacher voicing his/her own perceptions of a situation).

A focus for analysis is to find the *knots* where the threads interact and particularly influence events. For example, a pupil who disturbs the class may be looking for reactions from higher status pupils in the class. There are also occasions that result in interactions that cause a difficult situation, such as when a pupil comes to feel humiliated by a teacher's actions. We believe that the methods at the end of this chapter will provide you with the tools that you need to go beyond a causal perspective and to uncover the systemic aspects of your practice situation.

Holistic and analytic perspectives

In this chapter, we have given a number of hints for clarifying the starting point of research. This process of clarification is not value-free. By clarifying or analyzing situations and problems we are necessarily rather selective and reductionist (see also Chapter 6). When we reduce the complexity in our practice to a few central features it often results in a mechanistic view of reality. This tendency has to be counteracted from time to time during the research process. We must not equate a reductionist and mechanistic model with the reality in which we live and act, which is much more complex than our model. The following suggestions may help to prevent this:

- Once you have developed hypotheses don't view them in isolation from one another, but always look for possible links among them. Take the systemic view.
- Try to keep in mind the specific situation from which the hypothesis was derived initially, by asking from time to time: Under what conditions would the prediction of my hypothesis be likely to be valid? Under what conditions would it likely stop being valid?

Methods for clarifying the starting point

Conversations

Conversations with colleagues play an important part in action research. This holds not only for the stage of "clarifying the starting point" discussed in this chapter but for the whole research process. Conversation has long been seen as a method of research. In science, new ideas are tested by engaging in grand, cooperative conversations that follow agreed- upon standards (Putnam, 1995). Interviews can be held in a conversational manner (Seidman, 2013), and an important part of ethnographic research is to engage in conversations with participants (Fetterman, 2010). Conversation has also been recognized, from a feminist perspective, as a way to make meaning of data (Belenkey, Clinchy, Goldberger, & Tarule, 1986; Josselson, 2006). In addition, the use of narratives, which can be stories told to one another, is another way that conversations can serve to make sense of your practice situation (Caine, 2010; Connelly & Clandinin, 1990).

We urge you to engage in conversation about your research. The partners in the conversation should be *critical friends*: they should have empathy for the action researcher's situation and relate closely to his or her concerns, but at the same time be able to provide rich and honest feedback. A small team of action researchers creates better conditions for action research than a person working alone. The group can all be working on the same problem or each member could have his or her own starting point. Another good way of working is to form research tandems. The partners in each tandem have their own starting points for research but assist each other as critical friends, sharing experiences, and helping with data collection (see Chapter 3).

M4.6 Analytic discourse in a group

This procedure allows us to increase our awareness of the important characteristics of any situation and to enhance our understanding of their interdependencies. However, it presupposes that the analysis is carried out in a group rather than individually. In analytic discourse, a problem or issue is analyzed in the following way:

1   It is the task of the action researcher who wants to analyze a problem to provide the group with basic information on the issue to be discussed (in about five minutes); and subsequently to answer questions put forward by the group as comprehensively as he or she deems possible or feasible.

2   It is the task of the remaining participants to gain a comprehensive and consistent impression of the situation by means of asking questions. These rules have proved to be important in carrying out analytic discourse:

- There should be questions only: statements concerning similar experiences should be avoided. This rule aims at focusing attention on the situation of the reporter.
- Critical comments (including those in the form of questions) should not be permitted. This rule, of special importance at the beginning of a discourse, aims at preventing the reporter from becoming defensive rather than reflective.
- Suggestions for solutions should not be permitted. This rule is to ensure that the search for an increasingly profound understanding of the problem is not cut short by a compilation of recipes. Be careful not to ask leading questions that are really suggestions, like "Have you considered ...?"

3   A moderator (usually one of the participants, who is prepared to assume that role) should monitor adherence to these rules after they have been discussed beforehand with all participants. He or she is allowed to ask questions and may use this as a means of opening up new perspectives.

4   For the analysis of a situation three types of questions are predominantly suitable:

- Questions that help the participants to better understand the situation by making it more concrete (for example, the request to give an example or provide more details).
- Questions concerning the underlying theories (for example, a request to give reasons for any action described, or any interpretations of events put forward).
- Questions concerning an expansion of the system (for example, the request to give more information about people or events who may be related to the problem but have not so far been mentioned).

We have seen many examples of how the *analytic discourse* has been an effective method for gaining an in-depth understanding of a problem. Through it, the interrelationships among the elements of the problem, including the "headache areas," become apparent. This can provide a basis for solutions or for a new line of inquiry. An analytic discourse can lead to a deeper understanding of the problem—particularly for the person reporting but also for the whole group.

It usually takes some time for an analytic discourse to open up a problem in depth and become an intellectually worthwhile and personally enriching experience. The personal enrichment has to do with the seriousness, the sympathy, and the personal concern that may develop in the group. The intellectual value derives from a growing understanding of the intricate relationship among

observations, tacit assumptions, and evaluations that are specific to one person's situation, but that have many implications for the other participants' self-understanding.

Usually the action researcher for whom it is organized gains the greatest benefit from an analytic discourse. Apart from the deepening relationship with colleagues that results, the reporter develops a clearer and more analytical view of the problem or issue. Sometimes this can be experienced quite dramatically, if the reporter's perception of the problem changes fundamentally or approaches to its solution emerge. Often there is emotional relief as a result of a more analytical view of the starting point.

The role of the moderator is not always simple because it involves seeing that rules are observed that are against the practice of everyday conversation and that, therefore, are "forgotten" easily. The moderator must see that the rules are kept or run the risk of the discourse remaining at a superficial level.

It may sometimes be necessary to refuse to accept questions that go too deep and invite a level of personal and emotional commitment unwarranted by the level of mutual trust in the group. Too much emotional involvement can also interfere with analysis because it draws attention away from a systemic view of a situation to a one-sided, causal interpretation (possibly too personally focused).

In the course of an analytic discourse, progress should be made in three areas:

- The situation in which the research problem occurs should be clarified (knowledge of surface symptoms).
- An understanding should develop of "positive" and "negative" factors and influences related to the problem (in-depth interpretation).
- An understanding should develop of the potential for change (in thinking and action). To this end, coherence and holistic plausibility of analysis is often more important for a researching teacher than the "objective" quality of individual arguments.

It has proved to be helpful if there is still some time left at the end of an analytic discourse for discussion without the rules. Often there is strong interest in the group in talking about the experience. If this opportunity is announced at the beginning of the discourse, when the moderator explains and negotiates the rules, it takes pressure off the process because participants who urgently want to "tell their own story" know they will get their chance later.

M4.7 Conversation with a critical friend

If you have no group of fellow researchers to take part in an analytic discourse, you can do something similar with a critical friend, a person whom you trust and feel you can confide in. Of course, one-to-one conversations would not follow the rules as strictly as we have suggested for an analytic discourse. Nonetheless it can still be very useful to adopt a similar discipline:

If you want to assist a colleague in clarifying a situation, it is useful to devote a period of time to gaining an understanding of the situation and:

- only ask questions that deepen this understanding;
- refrain from any anecdotes, adverse criticisms, or suggested solutions that might distract or deflect the train of your colleague's reflective thinking.

M4.8 The starting point speech

One of the ways to organize your thoughts and ideas about your starting point is to write—and, if possible, present—an informative speech about it. The audience for the speech should be your research group, your critical friend, or possibly other interested colleagues. We suggest that it be a short speech (five to ten minutes) in which you explain why your starting point is important to your practice.

Here are some suggestions of what the speech could contain:

- a statement of your starting point;
- why it is important to your practice;
- the general idea: "a state of affairs or situation one wishes to change or improve on" (Elliott, 1991, p. 72);
- the results of reconnaissance—a description of the facts of the situation, and an explanation of the facts of the situation (Elliott, 1991, p. 73);
- a list of several places that you might look in the research literature to learn more about the problem;
- "a statement of the factors one is going to change or modify in order to improve the situation, and the actions one will undertake in this direction" (Elliott, 1991, p. 75);
- your ethical concerns and what you might do about them.

Using diagrams

Normally theories start with a verbal description (written or spoken) of a situation. After a period of reflection, discussion, and/or writing, the salient points are then drawn out and expressed in succinct, verbal statements (that is, the hypotheses). Of necessity these statements are reductionist, losing much of the complexity and detail of the situation they attempt to explain.

Miles, Huberman, and Saldaña (2014) have suggested that narrative texts (and other ways of presenting theories linguistically) overstretch the human capability to digest information and therefore lead to oversimplified interpretations. They make a plea for more frequent use of diagrams and other graphical means of representing theories. Narrative texts organize information according to the sequential structure of language and pose a problem for the representation of non-sequential events. Diagrams, on the other hand, allow us to represent information and its interrelationships in a structured, rapidly accessible, and compact form.

Miles et al. (2014) give some suggestions for constructing diagrams:

- Limit the diagram or chart, whenever possible, to one sheet of paper.
- Try out several alternative ways of representing the situation. Many changes and modifications may be necessary before you are satisfied. The graphical representation should not be thought of as a straitjacket to limit future work but more like a map of the area that has just been researched. A main purpose of research is to contribute to the development of maps.
- Avoid "the no-risk framework." If the elements of the situation are defined only in very general terms, and two-way arrows connect everything to everything else, it will be easy to confirm the theory but it is unlikely to have any explanatory value. It is better to express your ideas as concretely and definitely as possible. The more exactly a practical theory is formulated, the more helpful it will be for your further work (although it is likely to need considerable modification).
- Use the graphical representation for your own development. Outcomes of practical experience, existing theories, and the results of important research studies can be "mapped on to" it at a later stage. This will help to identify parallels, overlaps, contradictions, and gaps and, in this way, refine and deepen your understanding of the field of study.

It has also been suggested to us by Eisner (1994) that one of the purposes of a diagram is to make complex ideas accessible. While oversimplified diagrams may not sufficiently conceptualize the situation, ones that are too complex will befuddle you and your colleagues. If your research group or critical friend cannot understand your diagram without a lot of explanation from you, try to make it simpler.

In the following M, we suggest a practical method for creating a diagram.

M4.9 Graphical reconstructions

Graphical reconstructions help to clarify the situation but also help with data analysis in general (see Chapter 6).

Procedure

1   Read all your data and your notes in your research notebook (for example, your short description of the situation and questions that indicate the developmental perspective (see M4.4)).
2   Write the most important features, events, and actions that you identify in your data separately on small index cards. Then write on further cards the *most important* contextual conditions of the situation. Try not to have too many cards (particularly at first) or it may be too difficult to keep them all in view: 8–16 cards are ideal as a rule. If you find there is a need to include further items as the activity progresses, new cards can easily be added.
3   Now try to express the kind of relationship between the cards. For that purpose, you can use further cards with symbols for relationships. Probably you will most often need the ones illustrated in Figure 4.3. Other symbols can be written on blank cards as needed.

The point of *graphical reconstructions* is that in presenting the essential elements graphically (and not in a linguistic flow of ideas) you have to restrict yourself to essentials and be clear and concise. This helps to identify the most important features of a situation. Working with movable cards makes it easy to try out different configurations until you find one that satisfactorily reconstructs the situation you are considering. As you move the cards you go through a process of clarifying the relationships among all the elements of the situation.
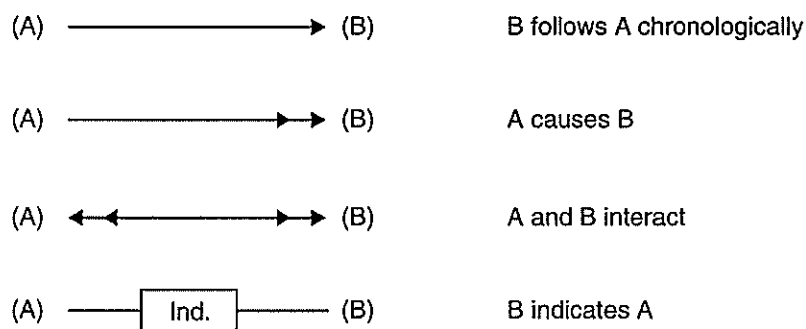
(A) ——————▶ (B)	B follows A chronologically
(A) ——————▶▶ (B)	A causes B
(A) ◀◀——————▶▶ (B)	A and B interact
(A) ——[Ind.]—— (B)	B indicates A

Figure 4.3 Symbols for relationships.

4   When you have found a representation of the starting point that really satisfies you, copy the *graphic diagram* on to a single sheet of paper. Preserve this diagram. In the course of your research you will be able to see how your ideas change. You can also use the diagram to check how plans for actions fit your personal theory as represented in the diagram: From which elements of my theory do my plans for innovative actions originate? Why exactly do I think they originate there and not from other points on the diagram?

5   There is software that you can use to construct graphical representations. This type of software is used to visualize connections among concepts and ideas by providing users with the tools to construct diagrams like those shown in Figure 4.4. A popular one among teachers is called *Inspiration®*, which includes features such as the ability to go from the diagram view to an outline view, and to incorporate text, images, video, and audio into the diagram and outline. Many of these tools can be used on tablets and smart phones, as well as computers.

The following is an example from action research done by Vanessa Vernaza-Hernandez. Vanessa was an assistant for a Research Experiences for Teachers (RET) project. In the RET, secondary science teachers spent six weeks during the summer engaged in scientific research. They were expected to take what they learned from that experience and implement it in their classrooms. Vanessa's role was to work with the teachers to help them develop and implement a unit plan, and to do action research on how they implemented it in their classes.

> *My practice consists in helping these teachers to develop and/or review their unit plan and help them to conceptualize their action research. The diagram (see Figure 4.4) reflects the events and actions that have characterized my practice so far and the relationship among these events and actions. In addition, the diagram shows some events that are expected to arise as a result of the realization of certain ideas and actions.*
>
> *The diagram shows how I began with my previous experience and reading of the RET proposal. This led to the development of my starting point, which I discussed with one of the RET teachers and my critical friend. The teacher expressed some doubts and questions related to the process of action research. So, I searched in the literature for different articles to improve my understanding, and also to provide the teachers with resources and tools that they could use to develop knowledge about educational research that would empower them with their action research projects.*
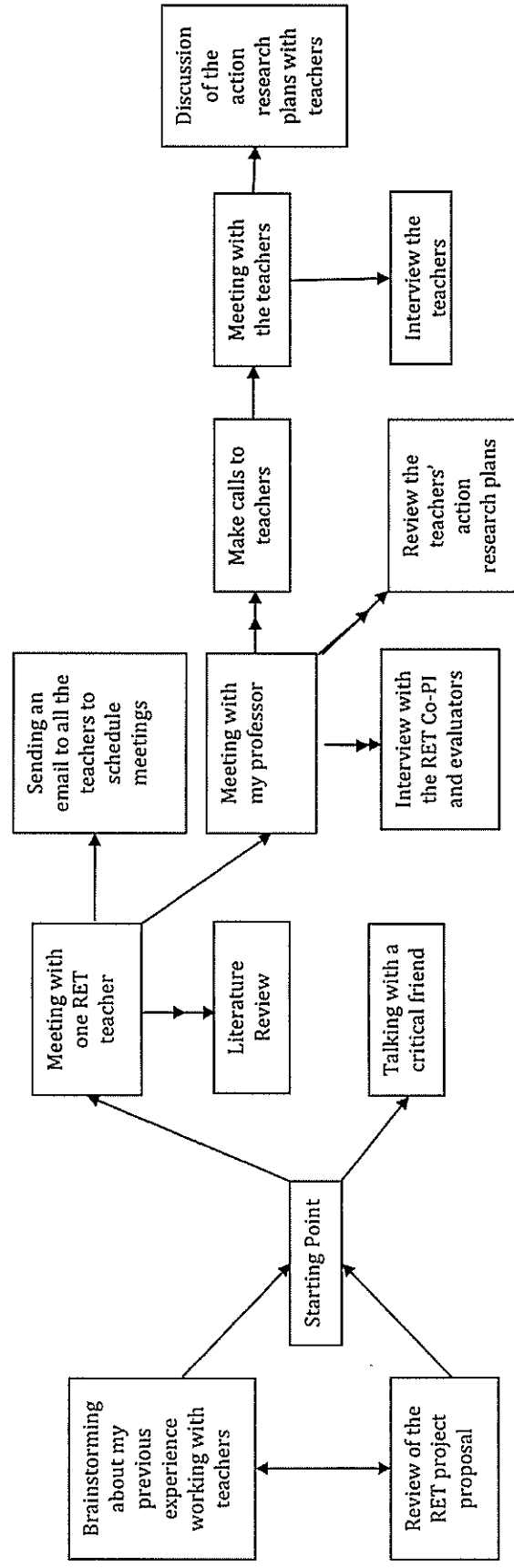
Figure 4.4 A graphical reconstruction of clarifying the starting point.

Vanessa's next step was to contact the teachers by email to set up meetings with her professor and the decision to seek additional information from them. However, she didn't get much response. This led her to have conversations with the RET project principal investigators (PIs) and evaluators to gain a better understanding of her practice situation.

> *This first cycle of my action research process is helping me to understand why the teachers are not responding and to know which communication strategies the teachers, PIs, and evaluator consider the most appropriate to communicate with the teachers. In this way, I will be able to incorporate the teachers', Co-PIs' and evaluators' recommendations into my practice of action research, which will help me to improve the process of communication with the teachers and which, certainly, will result in the successful development and implementation of the teachers' action research.*

M4.10 A story from cards

Try to observe practical situations that are important in relation to your starting point for action research over a defined period of time (for example, between one and three weeks depending on the research question).

1 After each observation, describe the situation as precisely as possible on a large index card.
2 At the end of the time, take all the cards and read through them.
3 Try to write a general explanatory statement that relates to all the situations you have observed.
4 Check this explanatory statement by answering the following questions for each card in turn.
   • Is it possible to present the situation described on this card using the concepts in my general explanatory statement?
   • How?
   • If the situation I observed is distorted or fragmented by this attempt, what changes or additions do I need to make to the explanatory statement?

As with many of the M activities in this book, you could do this using a computer or other digital device. That said, we recommend the use of cards because they are easy to sort through and arrange by laying them out on a table or work surface. This can provide you with a holistic view that may be difficult to produce on a screen.

M4.11 Photovoice: a story from photos

Caroline Wang developed the photovoice technique as part of her participatory action research work with women's health issues in rural China. Wang has three main goals for photovoice:

> to enable people: (1) to record and reflect their community's strengths and concerns; (2) to promote critical dialog and knowledge about personal and community issues through large and small group discussions of photographs; and (3) to reach policymakers.
>
> (Wang, 1999, p. 185)

There are numerous examples of photovoice projects available on the Internet and published in books. One of Wang's more recent articles describes how it can be used as a participatory action research strategy that can contribute to youth mobilization for community change (Wang, 2006). Although it was not labeled as photovoice, the use of photography by children in the documentary film *Born into Brothels* (Kauffman & Briski, 2004) is an example of how photography can be used to gain new perspectives of your situation.

You can use the photovoice technique to gather data about your situation, reflect upon it, and construct a story through pictures that provides you with new ways to think about your starting point. We suggest the following steps:

- Take a series of still photographs of your practice situation. You may want to plan out your pictures ahead of time or just carry a camera with you for several days. If your photos contain pictures of your pupils, patients, or clients, you will need their permission to share them with others, including your research group or critical friends. Even if you do not intend to share the photos, you should ask permission to take them.
- Select 15–20 of the photos, put them into some order, and give them captions. Wang suggests that you try to answer these questions, which she labels with the acronym SHOWeD:
  - What do you See here?
  - What's really Happening here?
  - How does this relate to Our lives?
  - Why does this situation, concern, or strength exist?
  - What can we Do about it? (Wang, 2006, p. 151)

- Wait a few days and revisit your photovoice project. It also helps to present your photovoice project with commentary to your research group or critical friend. Then answer these questions:
  - What do the photos you selected and the captions you wrote tell you about your practice situation?
  - Were there any significant aspects of your practice that you did not include? Why didn't you include them?

M4.12 From categories to hypotheses

We formulate hypotheses as part of our action research in order to make ourselves aware of our tacit assumptions and provide an orderly framework for our action research. The starting point is usually a loosely structured information base (experiences, knowledge taken from books or data). Working on this information the action researcher tries to impose a pattern by identifying important characteristics or categories as distinct from unimportant ones and by making connections between these categories explicit. Unlike in graphical reconstruction (M4.8), the results of the analysis are not expressed diagrammatically, but linguistically. In what follows, the procedure of formulating hypotheses is split up into steps, each illustrated by an example (see also the practical hints for coding data in M6.2).

1   First, try to identify your assumptions about the situation in question as they are documented in your research notebook, in other data you have already collected, or in your memories from reading or experience (documentation). For example, a teacher made the following notes from memory after seeing a video recording of one of his lessons.

> *The recorded lesson once again shows the problem I have identified: in this class there is no discussion that is kept alive by the pupils themselves for any length of time. Even if I ask questions or express provocative opinions there is normally little response and the topic is closed ... Watching the video I became aware of a pattern that occurred four times (the first time stimulated by a worksheet that all the pupils had to read, the other times by a question from me). First a genuinely controversial topic is introduced for discussion. Then three or four pupils say something that is relevant to it. Then I put forward my opinion. Then only one or two more pupils say anything further (in one case nobody said anything further). Does the discussion die as a result of my statement?*

2 Write down all the categories that emerge. To do this we need to know exactly what a category is. Unfortunately, it is difficult to give one overall definition, but here is an attempt:

- A category is a concept, usually represented by a noun (with some additional phrase) that is used to label some aspect or phenomenon in your journal entry, other data, or experiences. It can be used as a key to help you order the ideas in your documentation.
- The action researcher creates the order of the ideas by using a category to stand for several phenomena, which in the documentation are likely to be expressed in quite different forms.
- By putting them in a category, different aspects or phenomena that you regard as important are differentiated from unimportant ones (that is, those that are not put in a category) within the framework of the action research question.

It is easier to understand the concept of a category with the help of examples. As an exercise we suggest that you reread the description above and make a list of categories contained in the text that you think could be important in clarifying the situation.

My list of categories _____

_____

_____

We have also done this exercise ourselves and made the following list of categories:

- *class discussion* (developed from, "In this class there is no discussion ...");
- *teacher's questions* (developed from, "Even if I ask questions or express provocative opinions ...");
- *topic introduction* (developed from, "a genuinely controversial topic is introduced for discussion");
- *pupils' responses* (developed from, "there is normally little response ...," "then three or four pupils say something ...," and "only one or two more pupils say anything further");
- *discussion dying* (developed from, "Does the discussion die ...?");
- *teacher stating views on controversial topics* (developed from, "Then I put forward my opinion").

We see some value in keeping categories close to the wording of the original text initially and, as the analysis progresses, regrouping some of these as more general categories. If your list is worded differently or contains different categories it need not be "wrong." Maybe you see a different pattern from us in this situation. In the end, the "rightness" of a category is determined by its usefulness (that is, its analytic power) for further research and action. In any case, comparing different lists of categories drawn up by different people (for example, yours and ours) helps us to understand the alternative perspectives expressed through the selection of categories. If you have the opportunity, discuss these differences with your research group or a critical friend.

3   When you have made your list of categories from your action research, check this interim result:
   - Are there categories that actually describe the same phenomenon and can be combined in one category?
   - Are there any categories that represent different aspects of a more general concept (that is either already included in your list or should be added)? In our example, "discussion dying" is closely related to "pupils' responses." We keep the more general category "pupils' responses" and cross out "discussion dying" on our list.
4   When reading the data and making the first list of categories, same patterns connecting categories usually emerge that need to be written down. Make a list of hypotheses that express presumed relationships among these categories. Usually hypotheses are formulated in an "if ... then" form. Try this out by taking two categories from your list and writing down a possible connection in the form of a hypothesis:

My hypothesis_____

_____

_____

For example, from our list of categories we set up this hypothesis:

> If there is more "teacher stating views on controversial topics," then there will be less "pupils' responses."

Or in a stylistically more elegant form:

> If the teacher expresses opinions on controversial topics more frequently, then the frequency of pupils' responses (to the controversial topic) will be reduced.

Remember that hypotheses need to do more than describe the relationship among categories—they should also provide an explanation as to why that connection exists.

5   Examine the list of hypotheses that you have drawn up, using the following criteria:
   • Which categories do not appear at all in the hypotheses or only figure marginally? Why not?
      o   Is it because you don't have a theoretical concept of these categories—in other words, that you don't really know what they mean?
      o   Is it only possible to identify trivial connections between them and other categories?
      o   Is it only possible to identify hypotheses that cannot really be investigated?
   • To which hypotheses can you already bring a lot of experience (examples?), and which ones are very speculative?
   • In order to test these hypotheses, what action could you take in your practice and what data would you need to collect?

Notes

1 For example, the Physics Teachers Action Research Project in California (Erzberger et al., 1996), the Formative Assessment Action Research Project in Massachusetts (Kropf, Emery, & Venemen, 2003), the evaluation of the ICT Test Bed Project (Somekh, 2006b), and environmental education teachers (Kyburz-Graber, Hart, Posch, & Robottom, 2006).
2 Modified from *Developing Teaching* (1984).