The importance of language in action research
- exemplified by teachers´ metaphors

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Abstract: The aim of this paper is twofold. Firstly we want to bring forward and highlight language as one of the most important and fundamental aspects of and tools in research, especially in action research, which is grounded on communication between researchers and practitioners in a co-operative inquiry into some aspect of the educational reality in hand. Secondly we present metaphor that is one organic aspect of human communication and meaning making within language. We also give examples of "the use" of metaphors within action research.

Language functions as a means of or a vehicle for collaborative meaning making and joint activity in all human societies, institutions and organisations. It enables the partners in action research - researchers and practitioners - to coordinate their joint action that is to negotiate goals, to choose means and to evaluate outcomes. Besides this interpersonal function language also has an ideational function by providing means by which we are able to represent objects and phenomenon's in our world as well as interpret and understand the relationships between them. Language is maybe the main "tool for collaborative remembering, thinking, problem solving and acting" (Chang-Wells & Wells 1997, 149). When we reflect on (action) research in educational settings we should not allow ourselves to overlook the matter of course. Firstly that everyday life in schools is (almost) entirely dependent on language, both written language and spoken language. Action within educational contexts is impossible without language. Schools exist both in and by language. Secondly, research, at least within social sciences, is also dependent on language. Research is conducted in and by language. The very "object" of for example educational research is - the language. Or maybe we should talk about two different languages, two different vocabularies. Language in everyday contexts is natural, informal and constantly evolving whereas the language of science is or should be characterized by formality, high stylisation and precision (Elden & Levin 1991, 131). Human activities, such as every day life and the scientific study of it, take place in a certain social and historical context. Understanding the aims and meanings of these activities, not infrequently mediated by language, calls for sensitivity. Carr and Kemmis (1986) describes the matter of fact as follows:

> Equally, language itself has a history, and to understand any supposed truth or any truth claims requires setting in it the framework by which language came to mean, and to allow us to mean, the particular thing being claimed. (Carr & Kemmis 1986, 182)

On (action) research

The repertoire of skills, or metaphorically the toolkit of action research, has been widely discussed in the literature. One basic tool, namely the "tool of language", needed for

communication within action research, seem however to be missing. Or maybe it would be more accurate to state that the action research toolkit seem to be defective when it comes to systematic reflections on the meaning and importance of language. The language aspect, referring to the fundamental role of language within action research seem to have been noticed mainly within the postmodernists and poststructuralists conceptions of action research, in connection with for example the idea of discourses (e.g. Brown & Jones 2001). Language, metaphors, narratives and discourse form the central elements of postmodern epistemology. The starting point and the focus is, not the final and overarching truths communicated through a scientific language alienated from everyday practice and problems, but short and little stories – narratives. They reflect for example a certain group of practitioners (e.g. teachers´) way of making meaning and organizing their actions in a certain social reality. Rich storytelling and detailed narratives as illustrations of the particularity embedded in specific cases can be used to test the validity of general scientific laws (Greenwood & Levin 1998, 123-125; Jennings & Graham 1996, 169). A postmodernist perspective might, according to Jennings and Graham (ibid. 171), require the action researcher to both "consider meaning in terms of relations of struggle embodied in everyday practice" as well as to view his actions in relation to "local contexts". Action research can be looked at as a specific discourse. Action research, when looked at from both the researchers and the practitioners' point of view is constituted by an identifiable narrative or story. It challenges the traditional ways of making sense of research for example by having rules and metaphors of it's own (ibid. 172).

Reason and Bradbury (2001) reflect on the interest in language in the light of the linguistic and cognitive turn within social sciences since the 1960's. The focus is mainly on the role of language in the cognitive construction and presentation of the reality and the world, less on the fact that the constructions and presentations researchers and practitioners hold has to be communicated in some way. They admit the great importance of language in the process of creating shared realities within action research, especially when the emphasis is on developing democratic forms of knowledge. But they find the coupling between the concern with discourses, texts and narratives and the knowledge-on-action needed in successful action research loose. They summarize their viewpoint in a following way:

> We need to find a way of acknowledging the lessons of the linguistic turn while not ignoring the deeper structures of reality, and propose a more creative and constructive worldview can be based on the *metaphor of participation*. (Reason & Bradbury 2001, emphasis added)

Scientific rigor and action in everyday life, can be looked at as two socially created and preserved realities, differing from each other both considering the methods by which they are created and considering the formal presentation of them. The presentation and communication of the "two worlds or realities" during action research is highly dependent on language. Language is one of the fundamental, if not the most fundamental elements that help a group or a community of action researchers, firstly to construct and make sense of their own research activities, and secondly to communicate within and make sense of the social reality they are involved and engaged in during "action research". Success, referring both to true participation and meaningful action, is in many ways dependent on how well a action researcher is able to construct and share a common language with the practitioners involved (Jennings & Graham 1996, 172).

One crucial starting point within action research, the prerequisite for action, is to both look at and understand the social reality under scrutiny from the viewpoint of the practitioner (Nagy Hesse-Biber & Leavy 2004, 134). An action researcher has to get-together with the practitioners. Miller and Crabtree (2004, 187) describe this get-together as a conversational research and action journey constituted by certain rules of which some are given and some have to be constantly re-negotiated throughout the journey. Reason (1999) calls this ´journey´ a co-operative inquiry, which refers to a way of working with other people with similar kinds of concerns and interests. The aim of this inquiry is; firstly to understand each other's worlds, make sense of them and elaborate new and creative ways of comprehending these worlds, and secondly to learn to act in a way that leads to some kind of improvement. One could conclude this by stating that the basis, the means and the end as well as the outmost challenge of action research is the meeting of two "worlds", two different traditions, perspectives or frameworks on human life and existence.

Elden and Levin (1991, 129-132), when presenting participatory action research, describe the process of action research as collaboration between practitioners and researchers with the aim of co-creating a local theory. This local theory is based on two different frameworks, the practitioners' framework, which is implicit, individual and fragmented, and the researchers theory based framework. The concept of framework is used to refer to a certain way of understanding, a cognitive map or a language. But maybe one should try to make a distinction between the construction and development of a cognitive framework and the processes by which this framework is communicated during action research. Both aspects are dependent on language by which the content and the characteristics of one's framework are communicated. The richness and quality of participatory action research seem to be dependent on how well practitioners and researchers manage to play their differing frameworks against each other, understand each other in order to create an amalgamation, mutually created and accepted local theory as a basis for action.

The social reality called action research is impregnated with metaphors. Maybe we should look at the concept ´action research´ as a metaphor. It is in many ways as explanatory and misguiding as metaphors usually are. The intensive use of metaphors within a certain social reality, for example within a certain field of research, might be interpreted in many different ways; as a sign of uncertainty, dynamic evolvement or complexity. The intensive use of metaphors when describing the role and mission of an action researcher is a sign of something. Why don't we simply call action researcher as an action researcher; why do we have to use metaphors like change catalysts, agent, detective, technician, trainer, therapist, critical friend, the friendly outsider, chameleon or ropewalker (e.g. Greenwood & Levin 1998, 104-108; Salo 2004, 81)?

On metaphors

Metaphors, as one of the tools within rhetoric's, represent a figurative use of language. They are used in order to communicate specific features of the culture within a certain field of activity or within certain kinds of organizations (e.g. schools) as well specific features of an individual's way of understanding and making meaning of his life, his world and his thoughts. The use of a metaphor is based on comparison or analogy

between two, at a first glance separate terms, linguistic frameworks or domains. Metaphors are mostly used to describe or explain a phenomenon, which is unfamiliar or complex by comparing it with some other phenomenon that is supposed to be familiar or simple. Therefore, the use of a metaphor is based on the likeness or the unlikeness of two phenomenon's or between two separate domains (e.g. Coffey & Atkinson 1996, 85; Proctor 1991, 63-64). Lakoff and Johnson (1980, 5), who claim that human thinking is essentially metaphorical, define metaphor as follows: "The essence of metaphor is understanding and experiencing one kind of thing in terms of another."

The very idea of a metaphor is to focus, underline and demonstrate a certain aspect of a phenomenon experienced as unfamiliar, complex or complicated - beyond the ordinary and well-known words or concepts. But a metaphor has it drawbacks. Instead of underlining a point or making things clearer it can be perplexing and misleading. The political function of the metaphor relies on the aspiration of underlining and focusing ideas that are regarded as desirable, and furthermore on the potential that metaphors also hold, namely to disregard certain aspects of a phenomenon. One can assume that use of metaphors by practitioners in a certain social context reveals something about the characteristics of the specific context. Metaphors are grounded in traditions, common experiences, specific values, shared knowledge and collective identities. A researcher can use metaphors as a short cut, when striving for to identify the cultural features, shared understandings or situated realities of a group of practitioners in a certain social context (Coffey & Atkinson 1996, 86). Metaphors can be used both as a means and as a method. One can identify metaphors in the everyday language of the practitioners or ask the practitioners to describe aspects of their every activities by using metaphors (Salo 2002, 210-214). Within science metaphors are often used in a heuristic and imaginative way, to describe and label ideas, thoughts, concepts, models or perspectives that are new and evolving. Miles and Huberman (1984, 221) identify several possibilities for using metaphors within qualitative research. Researchers can use metaphors besides as data-reducing, pattern-making and decentring devices as ways of connecting findings to theory that is to bridge the "gap" between practice and theory.

Quite often, the metaphors used in educational research derive from nature, technology or social life at large. Scientific concepts are quite seldom used metaphorically, even though it is possible to find examples of metaphorical use of the most fundamental concepts within scientific research. The concept of ´theory´ seems to have become a research guiding metaphor, kind of a root metaphor, in studies of teacher's cognitions. The use of theory as a metaphor is often extended by complementing it with prefixes like subjective, private, personal or naïve. Bromme (2003) discuss in detail the use of the metaphor ´theory´ as conceptualisation of the action-relevant knowledge teachers' rely on when they act in their classrooms. But he seems not to be comfortable with the metaphorical use of the concept of theory. His main objection against the use of theory as a metaphor is the difference between the two domains in question, namely the domain of scientific research based on certain criteria of rationality and the domain of practice with certain criteria of effective action. The challenge of handling this difference is one of the main challenges also in action research. One of the most fundamental criteria of rationality in scientific research is the separation of descriptive-analytical statements, referring to observations of things as they are from normative-prescriptive statements, referring to for example decisions on how things should be

done in order to be considered as effective. Consequently, when a teacher confronting a restless group of students in her classroom does not have, before making a decision how to handle this, the possibility to make systematic and analytical observations of all the variables in hand as well as the couplings between these, the ´theory´ as a metaphor for her action-related knowledge is inappropriate. Even Carr and Kemmis (1986, 189) reject the idea that teachers´ operate according to some kind of implicit theories, or more precisely a certain set of principles. According to them teachers "acting" is largely a product of unrecognised customs, habits, coercion and ideologies. Our counter-argument is based on the very idea of metaphors. They function by shedding light on certain aspects of reality while leaving other aspects, maybe not totally in the darkness, but in the shadow anyway. Metaphors, as research at large, are and should always be open-ended, in the sense that a hypothesis can be both proved and disproved. The function of a metaphor, as little as the function of a certain scientific theory, is maybe not to cover everything, just to make some crucial connections apparent.

Teachers´ use of metaphors after studies in Action Learning

In the following we present some examples of the different ways that metaphors has been used for communication during and after action research. We try to look at the use of metaphors from both the researchers theoretical point of view and the practitioners' practical point of view.

The Studies in Action Learning

We present two examples of teachers' use of metaphors during their studies in Action Learning. In a period of five years, the University of Tromsö, Norway, has been responsible for studies in Action Learning for primary and secondary school teachers in Sweden. The final aim of the studies was to develop more meaningful learning situations for students in the classroom settings. The studies were organised with two physical meetings and four videoconferences during one year. Between the meetings, the teachers´ involved in the studies organised group meetings with their "critical friends" in order to reflect their experiences from their "actions". To document what was happening in the classrooms, the teachers wrote journals with their reflections and interviewed their students. A close connection between "learning at workplace" and "learning at university" was emphasized throughout the studies. The teacher-students brought the experiences from their workplaces to the meetings and shared them with each other. The theories presented by the researchers at the University were meant to be used for reflections on practice. Researchers acted as process facilitators by asking reflective questions about the teaching, with the aim of forcing the teachers distance themselves from their immediate experiences.

Action Learning refers to a systematic, intentional developing of the practice together with other teachers and in partnership with a researcher. It is often called "the little brother of action research" (Tiller 1999). During the study, the teachers started up with a developing project –"action"- at their workplaces. They begun the process by asking themselves one fundamental question; what can I do in order to change the social reality I am involved in? (Kalleberg 1992). They formulated the complementary questions by using their own practice as starting point. The answers were supposed to be found and

formulated by inquiries in their classrooms. The inquiry processes were organized according to the cycle consisting of planning, acting, observing and reflecting (Carr & Kemmis 1986). The action learning process was completed by a written rapport from the inquiry where the teachers used theory, both to support but also to open up for new thoughts about their "actions".

It was quit evident that the teachers participating in the studies of Action Learning were energetic and enthusiastic. This was to be recognized both in their willingness to reflect on themselves as teachers during the studies and the evaluations they wrote afterwards. They told both that the study in Action Learning had endorsed them to try new ways of teaching and that they felt more professional and secure as teachers than before. Most of the teachers had been working for about twenty years. But why did these experienced teachers quite spontaneously come up with interesting and challenging theoretical reflections after having participated in quite short studies in Action Learning? To find more about what the studies had meant to the teachers, they were interviewed a year after they had finished their studies at the University of Tromsö. During the interviews some of the teachers used several metaphors when trying to explain the meaning of Action Learning. In the following two metaphors, brought forward by Ditte and Eva (the names are fictitious), will be presented and reflected on.

Ditte

Metaphors generate spontaneously a lot of images (Alvesson & Sköldberg 1994, 141). What images comes up when confronting Ditte's metaphor *"Chisel is much better than knife"*? We use a chisel when we want to work with hard material like tree and stone. Usually we use a hammer together with chisel. Chisel is more specialised for the task to form something very hard. An all-around tool like knife is not sufficient. When a carpenter has the tool he needs, it is much easier for him to get a good, or in other words a professional result. Ditte´s use of the metaphors chisel and knife suits corresponds beautifully with the function of a metaphor; a phenomenon that is unfamiliar and complicated is compared with some other phenomenon that is supposed to be familiar (Lakoff & Johnson 2003).

To understand what Ditte referred to with this metaphor, it is necessary to shortly describe what happened to Ditte during the studies Action Learning. Ditte was teaching German in secondary school. The challenge she confronted was to increase the students learning for their own sake and not for the teacher's. Through the students' journal reflections and by interviewing them, she increased her understanding of how her pupils were thinking. During this process she developed concepts about students' way of learning and found also words for describing this. By documenting her reflections, she found out what she would focus on in her daily life in the classroom. By using the metaphors *knife* and *chisel* she communicates something about past and present. Studies in Action Learning had literally provided her with *a tool* that gave her better possibilities to act in a more satisfactory manner than earlier. What tool is she speaking about? The Action Learning process consists of planning, acting, observing and reflection. This inquiry has improved her teaching, but has also strengthened her role as teacher. Through the studies in Action Learning she felt she has got a tool that was more suitable for her job.

Eva

Eva, a teacher in a rural primary school, used many metaphors. One of them was *" to wind up the yarns and weave."* What images does this metaphor create? When you are weaving, you use a shuttle to lead a yarn under and over the basic threads in the loom. If you are going to weave, and all the yarns with different colours are lying all over the floor, everything is chaotic. You have to begin with winding the yarns to a ball. Then you can start weaving with those yarns, and weave for example a mat. It is impossible to weave a mat using yarns that are lying all over a table. The yarns must be organized, winded to a ball, in order to be used in a loom. When you weave, you create a certain pattern. The pattern can be something you want to make a copy of or you can create your own pattern during the process. Eva had created her own pattern during her weaving. During the years she has been working as teacher, she has collected many "threads". Now she had the chance to wind them up and use a loom to weave them to a pattern.

What was the context for Eva's metaphor? She had been thinking about the fact that when pupils were working with mathematic tasks, they got too little time to solve problems. She wanted to find answer to the question; how can pupils' reflection during the solving of mathematic tasks become a vehicle for new ways of teaching? When the pupils were working with their tasks in mathematics, she asked them what they thought about problem solving. Afterwards she wrote down her reflections. Then she let the pupils work with solving mathematic problems individually and in groups. To document what was happening, she taped her conversation with the pupils and asked them to make notes on their reflections. Gradually she became aware of how important the language in mathematic is for the pupils. She also found some support for her hypothesis in the literature; that it is important for the pupils to "speak about mathematic". Another thing she had noted and reflected on, was how she responded when the pupils asked for her help. Instead of just guiding a pupil to the right answer, she asked him or her to express his or her own thoughts about the task and the possible answer.

When Eva was asked about the studies in Action Learning, she said that her way of thinking and reflecting had changed. She has had the possibility to get an overview of all the threads she had collected during her life as teacher. Before the threads are winded, we can imagine the chaotic situation with different colours of yarns spread around the floor. The teachers' every day working experiences could be described fragmented, incoherent broken and messy. Teachers need both time and "space" to reflect on the activities taking place within their classrooms (Handal & Lauvås 1999). During the study, Eva got the time, the physical "space" and colleagues to reflect with. In her own opinion all the activities a teacher confronts with during the working hours, e.g. conferences, plans, papers, hindered her to focus the meeting between the teacher and the pupil in the class. She said: " I have got my voice as pedagogue back." During the study she got the chance to ask questions about own practice, reflect about it and present her thoughts in a reflection group where the colleagues of her were interested to set the pupil's learning in focus. The study in Action Learning had also empowered her. She felt proud and strong and was prepared to express her opinions when discussing with colleges. Her conclusion was; "I hold my head up high".

Reflections on the metaphors

Both of the teachers´ metaphors presented above are somehow traditional, they originate from and refer to handicraft. Especially the second example is interesting and challenging because of the clash or the bridging of two different domains, mathematics as a theoretical subject and weaving as a practical activity. It represents a metaphor in its true meaning. But what was the function of these metaphors for the teachers in question? Why did they use them? Did they merely find an imaginative language, that it suitable metaphors, to articulate some kind of tacit knowledge emanating from their long experience of teaching and confronting students? Was it just because of the Action Learning project (academia meeting practice) they came up with these metaphors? And finally, can the metaphors the two teachers in question used be understood as communicating a local theory?

One of the functions of metaphors is to build bridges between the old condition and the new one. Daily words tell us only what we already know. Metaphors and a creative use of them helps us to grasp new phenomenon's (Lakoff & Johnson 2003,179). When Eva and Fanny were to describe what the studies in Action Learning had meant to them, they chose to use metaphors. They could easily describe the practical aspects of the action learning process, but to be able to tread the "jungle of theory" they had to use metaphors. The reason for this may be that it was to complex to describe precisely what it had meant to their role as teacher. Another reason may be that the metaphors made it possible to build a bridge between the teachers' practical life and "jungle of abstractions" where the language is "the practice".

The process of action research as true collaboration between practitioners and researchers with the aim of co-creating a local theory requires, in Elden and Levins (1991, 134) words *a cogenerative dialogue.* Teacher is the expert in the classroom and know how get things done. But her knowledge-on-action tends to be individual, non-systematic and unreflected upon. The researcher has training in systematic inquiry and the expertise in handling theories and creating new knowledge. What happened in the course of cogenerative dialogues during studies in Action Learning? Teachers learned how to carry out systematic inquiries in the classroom. They wrote journals about the inquiries they conducted in the school and were challenged to use theories to reflect on what had happened in the classroom and the lessons to be learned from these inquiries. The practitioner and the researcher met in a dialogue about both the learning-process of the pupils and the learning-process of the teachers as practitioners. These new frameworks could then be used a basis for a new action in practise. For Eva and Fanny the metaphors represent kind a local theory when as a professional teachers confront the demanding question: What can I do to improve my practice in school? Fanny manifested that she had found a new tool, *chisel instead of knife,* more suitable for her task as a teacher. Eva has realised that the action learning process had provided her with a chance to make questions about her teaching. "*Winding up the yarns and weave*" referred to systematic use methods to find out what role the role and importance of language played in mathematic lessons. The metaphors in hand shed a light on different aspects of what the studies in Action Learning had meant to them as teacher. They seemed also to be able to put forward alocal theory as basis for new, improved actions.

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