

The Power of Words: A Crucial Conversation at the Launch of an Action Research Project

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Action research in schools implies that the researchers and the teachers should collaborate on solving problems and improving practice. One underlying premise when choosing, such an approach, is that the participants are interested in, and willing to participate in such a process. In this article, the authors explore how words and utterances mediate participants' interest, positive attitudes and resistance. To illustrate this, a conversation among members in an action research team is presented and analyzed within the framework of socio-cultural theory. Possible implications for action research are discussed, and the authors suggest that a text like this may serve as a thinking tool for researchers, teachers and others concerned with development and learning in schools.

Keywords: action research, participants' collaboration, participants' commitment and resistance, socio-cultural theory

Introduction

There are three identifiable paradigms within the field of educational research. In the first paradigm, the traditional positivist paradigm, the aim of the researcher is not to influence the field, but to be distanced from it. The objective here is to focus on schools, teachers and educational practices. In the second paradigm, the researchers conduct their studies not on but in schools. The intention here is to capture the research subjects' perspective on their practices. Many classroom research studies are situated within this paradigm (Moen, 2004; Postholm, 2003; Sølvsberg & Rismark, 2012). However, increasingly, scholars (Carr & Kemmis, 1986; Coghlan & Brannick, 2005; Elliot, 1991; Stenhouse, 1975) are recommending that educational researchers should have a more active role in the field they investigate. They argued that researchers should not only describe the processes which are taking place and present the teachers' reflections and perspectives on these processes, but also collaborate with the participants in the setting to solve problems and improve practices. This approach leads to the third paradigm. Within this paradigm, the researchers work together with the teachers, fully intending "to transform the present to produce a different future" (Carr & Kemmis, 1986, p. 183). It is within this paradigm that action research is situated.

There are two schools of thought within action research (Steen-Olsen & Eikseth, 2007). While the English school, represented by Stenhouse (1975) and Elliot (1991), focuses on a hermeneutic-practical approach to improve practice, the Australian school, represented by Carr and Kemmis (1986), uses a critical-emancipatory

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approach to liberate practitioners in their field of practice. Both approaches emphasize that the fundamental aim of action research is to improve practice. According to Carr and Kemmis (1986), the two aims of action research are to improve and to involve. Action research seeks to improve three areas: practice, the understanding of practice by its practitioners and the situation in which the practice takes place. Closely connected to this is the aim of involvement. Those involved in the practice, i.e., the researchers and the teachers, are to be involved in the process in all its phases: planning, acting, observing and undertaking continuous reflections. Thus, the researchers and the teachers form an exploratory partnership (Tiller, 1999), and the researchers can be described as researcher participants and the teachers as participant researchers. According to this, action research is interactive (Coghlan & Brannick, 2005). The underlying premise when choosing such an approach to development in schools is that the participant researchers, i.e., the teachers, are interested in and willing to participate in such a process (Bjørnsrud, 2005; Tiller, 1999). Due to continuous demands placed upon schools and teachers in current learning society, experienced teachers are expected to learn continuously (Beijaard, Korthagen, & Verloop, 2007). However, changing and developing practice is a demanding and challenging undertaking, and the resistance to participation is very likely to appear in the course of any innovation activity (von Krogh, Ichijo, & Nonaka, 2000). While some enter development processes with an open mind and a positive intention of participating, others may resist and hesitate to participate in the processes (Carr & Kemmis, 1986). In this article, the authors explore how words mediate these two positions. The point of departure is an action research project initiated at a primary school in Norway. The aim of the text is not to provide fixed answers or solutions when it comes to the question of hesitation or resistance. Rather it is to offer a thinking tool (Gudmundsdottir, 2001) for researchers, teachers and others concerned with development and learning in schools. In the text below, the authors will first present the action research project and its methodological approach. Then, the authors will present a dialogue between a researcher and a teacher team, discussing how to start the project, and analyze the dialogue within the framework of socio-cultural theory. At last, the authors conclude the article with a discussion of some crucial topics that emerge from the text.

The Project and its Methodological Approach

Background and Guiding Framework

Norwegian pupils have been compared with pupils from other countries through participation in international studies¹ over a number of years. Compared with pupils in the other Scandinavian countries, Norwegian pupils have the lowest rating when it comes to academic achievement, and on the international level they score average or somewhat below average in all the studied areas. Bearing this in mind, in 2005, the Norwegian Ministry of Education and Research initiated a programme in practice-oriented research and development. An overriding aim of this programme is to develop knowledge that “raises the quality of primary and lower secondary education and training”. The programme plan states that the bulk of the project shall consist of researchers’ projects with users’ participation. This means that the research programme funds projects that encourage close cooperation between researchers and teachers to develop practices together. With this guiding framework, a group of six researchers contacted a school and invited it to collaborate on a project. As some of the researchers in the group are connected to two teacher education colleges, the school that was

¹ The studies referred to are PISA, an international comparative study of the competence of pupils in reading, mathematics and natural science; TIMSS, an international research project that focuses on mathematics and natural science; and PIRLS, an international study of reading proficiency.

chosen was connected to both these institutions as a student teacher training school. The school administration and its teachers responded positively to the researchers' initiative. After initial discussions, the researchers and the teachers collaborated on writing an application for funding. The application was granted, and a three-year project was launched in the autumn of 2006.

The School and Teacher Team 2

The school is situated in a suburban area and has pupils from first to tenth grade. There are 40 teachers working here with 480 pupils. The pupils are for the most part from middle-class families. The teachers are organized into three teams. Teachers in Team 1 teach pupils in the first four grades, teachers in Team 2 teach pupils in the fifth to seventh grades, and teachers in Team 3 teach pupils in the final three grades. During the project period, each of the teams collaborates with a researcher and chooses a topic to focus on in consultation with the researcher. Two of the researchers, not connected to a specific team, focus on the sharing and distribution of knowledge in the work community (Rismark & Sølvsberg, 2011). The first author of this article is connected to Team 2, and therefore, this micro society (Krogh, Ichijo, & Nonaka, 2000) is the focus in this text. Team 2 consists of nine teachers, where each grade has three teachers. Two of the nine teachers in Team 2 are men, the rest are women. They are all experienced teachers, and all of them have worked in the school for many years. One of the seventh grade teachers is the leader of teacher Team 2. During the previous school years, when writing the application for funding, the researchers and the teachers in the team had decided that in the coming school year, they would focus on "how to organize and facilitate learning environments for the pupils with a view to promoting adapted teaching". At that time, they agreed that the topic was highly relevant, since adapted teaching is emphasized both in the Norwegian Education Act and in the national curriculum².

Action Research Processes, Data Collection and Analysis

According to Elliot (1991), a need on the part of practitioners to initiate change and make innovations is a necessary precondition of action research. Consequently, the research question must focus on the teachers in their practice and it must be connected to their own experienced school workday and must be built on concrete experiences, gained and being gained in practice (Cohen & Manion, 1989). In this particular project, the research question was developed and defined collaboratively between the researchers and the teachers. This happened during the process of writing the application for funding. The next step in action research processes is that once the research question has been defined, the description and the analysis of the current situation follow. Then, the participants must determine how they would like the situation to be organized before planning new actions or strategies that will preferably lead to the desired situation. After the actions have been tested, the participants reflect systematically and thoroughly upon what has transpired. This review may lead to the new practice being maintained and/or new actions that may then be planned and implemented. Throughout this entire process, the researchers and the teachers cooperate in an exploratory partnership (Tiller, 1999), allowing the researchers to get many opportunities to collect data.

² Adapted teaching is embedded in sections 1-2 of the Norwegian Education Act. It states that "Teaching shall be adapted to the abilities and aptitudes of individual pupils". The intention of the act is also followed up in the national curriculum, which has a paragraph on "Adapted education and equal opportunities" (Læreplanverket for Kunnskapsløftet, 2006, p. 33). Adapted education is a political vision, a vision of school policy that is being realized in practice. Over a number of years several studies have been made on teacher practice in adapted teaching (see for example, Haug, 2003; Skaalvik & Fossen, 1995; Vestre, 1980). Even if teachers identify with the ideology of adapted teaching, the studies show that what dominates schools in general is teaching the whole class at once with little variation and individual adaptation. Thus, the teachers in team 2 are not alone, when they feel that adapted teaching is a challenge.

The empirical material, on which this text is based, is taken from a conversation that took place at the beginning of the new school year, in August, before the action research project had started. The researcher and the nine teachers, three from the Grade 5, three from the Grade 6 and three from the Grade 7, met to discuss the implementation of the project. Another researcher, the second author of this article, observed the conversation and wrote down the observation data. Observation of behaviour in a natural setting give the opportunity to develop insight into social phenomena (Silverman, 2002), and in this case, it gave the authors first-hand information on how words and utterances may mediate participants' interest and positive attitudes or resistance. The observation lasted 30 minutes. During the observation and immediately afterwards, field notes were written down, including exact transcriptions of the dialogues between the teachers and the researcher.

Immediately after the meeting, the two researchers met to discuss their fresh experiences of how the meeting progressed. This gave the authors the opportunity to elaborate on and clarify the situation they had experienced together. According to Morrow (2005), mutual construction of meaning between co-researchers is a step towards achieving credibility. When discussing the meeting, it appeared that the authors both had experienced that the teachers expressed overall positive reactions to the project and a desire to participate. However, there appeared to be a "turning point" at the end of the meeting, when one of the teachers suddenly expressed a desire to withdraw his willingness to participate. The authors decided to analyze the data to explore what actually had taken place during the conversations. The data analysis involved the interplay among the researchers, the transcribed data material and theory. It was undertaken both in the field and after the data had been collected. During the analysis, the authors moved back and forth between the transcribed text and theoretical assumptions on dialogical features of human interaction. Shifting between theory and data allowed the authors to capture multiple instances of the dialogue. The six researchers in the project had regular meetings together where issues, knowledge and experiences were shared and discussed. The authors aspired to enhance credibility by consulting with these participating colleagues who also had read the field notes and the transcribed dialogues before they served as peer de-briefers. They engaged in critical and sustained discussions (Rossmann & Rallis, 2003) and thus served as a mirror, reflecting the authors' responses to the research process. Morrow (2005) claimed that mutual construction of meaning between co-researchers is a step towards achieving credibility.

A Crucial Conversation

In the beginning of the meeting, the researcher connected to the team talked about and repeated the methodological approach to the project. She had also talked about this during the previous school year, but once again, she emphasized that as it was a bottom-up project, it was important that the teachers felt that they owned it and felt that working on it was useful (Madsen & Postholm, 2007). Thereafter, the researcher and the teachers started to talk about the topic of the project, adapted teaching, and some of the teachers' utterances were: "It is very useful for us to focus on adapted teaching", "We need someone to help us when we are going to practise adapted teaching", "We need some tools", "We need an outsider's perspective (with reference to the researcher) when we work on this", and "We really need some help in this process". Then the following dialogue took place:

- (1) Teacher 1 (addresses the researcher, asking): What is the situation, will you be working with one grade? Which grade will it be?
- (2) Teacher 2 (continues without waiting for an answer from the researcher): We have been talking about this. You

know, everybody would like to participate. We do not want an “exclusive” grade. All the grades must be allowed to participate. It is unfair, if only one grade is allowed to be part of it.

(3) Researcher: We might, for example, start with one grade, and the others might join in the reflection conversations...

(4) Teacher 2: For me, it would be very unreal to join in reflection conversations on other pupils than my own.

(5) Teacher 3: Certainly, but at the same time, there are some principle issues that might arise that we can all benefit from.

(6) Teacher 4 (addresses the researcher): If all of us are interested in participating. If everybody would like to. Do you see it as impossible to include all the grades?

(7) Researcher: I do not really know. ... I will have to think about it.

The discussion continued. Many teachers had something to say and they all stated that they were positive to the project and that it was relevant to their situation. The discussion was generally concentrated on how the project is to be implemented, whether all the grades can work together on it, or whether there should be individual projects for each grade. The meeting period would soon come to an end.

(8) Researcher: Perhaps, we should start with initial observations? I will contact you and then return when we have agreed on a time, and then we can consider and agree on how to do it?

Several teachers answered this in the affirmative.

(9) Teacher 5: I would like those of us who teach Grade 6 to talk about this together. (He looks at the other two teachers). Perhaps, we already have enough to do with other things? Is this something we should take part in? Do we actually have the time?

The conversation died out. Nobody spoke in reaction to this input. The meeting concluded with the participants' agreement to raise the issue again at the next meeting.

How can the Conversation be Understood?

According to Bruner (1984), the theory makes it possible to achieve an interpretive understanding of aspects of social life. Within the overall framework of socio-cultural theory, the authors find that Bakhtin's (1981; 1986) notions of “the internally persuasive word and the authoritative word”, Rommetveit's (1974, 1979) notion of “prolepsis”, and Wertsch's (1984) ideas on “intersubjectivity” are useful. As the authors see it, these concepts are particularly suitable, because they enable us to grasp various aspects of the complexity of human interaction found in this particular conversation.

The Internally Persuasive Word

Bakhtin's (1986) main concept is dialogue. He claimed that every utterance is dialogic in nature, because every utterance is addressed to someone. The “someone” could be previous utterances or other listeners or participants in an ongoing conversation. Therefore, no utterance occurs in isolation independently of its surroundings. Rather, every utterance has some kind of dialogic relation to its surroundings, past or present. According to Bakhtin (1981), some utterances that occur in a conversation or a dialogue between people engage the participants, and new words and utterances arise. It is in this connection that he introduces the notion of the internally persuasive word, saying that the “Internally persuasive word is half ours and half someone else's” (Bakhtin, 1981, p. 345). The internally persuasive word is not in a static and isolated position, its semantic structure is open, it allows dialogic inter-animation, and consequently, awakens new and independent words. From this, the authors can see that when someone's discourse is internally persuasive and acknowledged

by us, various possibilities emerge. It is interesting to look at the conversation taking part in Team 2, bearing these ideas in mind.

At the beginning of the meeting, the researcher talked about the methodological approach to the project. Then, the participants started to talk about the topic of the project, adapted teaching. The teachers said, "It is very useful for us to focus on adapted teaching", "We need someone to help us when we are going to practise adapted teaching", "We need some tools", "We need an outsider's perspective when we work on this" and "We really need some help in this process". These statements lead to the crucial question, how should the researcher deal with the project? Should she concentrate on one grade only, and if so, which grade 1? The researcher is not given time to reflect on this question. Instead, it immediately leads to another utterance from another teacher 2 who claimed that all the teachers in the group have already discussed this issue. It would be unfair, if the researchers were to concentrate on just one grade and they all want to participate in the project. The conversation continued on this topic. What is obvious from this is that the teachers are positive to the project and interested in it. The topic of the discussion is whether the researcher should start with one or all three grades (3, 4, 5, 6, 7). The atmosphere during the conversation appeared to be positive and the participants obviously felt free to say what they want. According to Bakhtin's theory, their utterances could be characterized in terms of the internally persuasive word, because various thoughts are expressed.

The Authoritative Word

Bakhtin's dialogic perspective implies that nothing can be perceived without being compared with the perspective of something else. Therefore, in contrast to the internally persuasive word, Bakhtin (1981) also presented the concept of the authoritative word. As opposed to the internally persuasive word, the authoritative word is based on the assumption that some utterances that occur in a communicative activity and their meanings are fixed. They do not change, even when they come into contact with new voices. The static and dead meaning structure of the authoritative discourse allows no inter-animation with other voices. Instead of functioning as a generator of meaning or as a thinking device, an authoritative text, spoken or written, "demands our unconditional allegiance" (Bakhtin, 1994, p. 78). He maintained that, "The authoritative word demands that we acknowledge it, ... we encounter it with its authority already fused to it" (Bakhtin, 1981, p. 342). The authoritative word is fused with authority, and it stands and falls together with that authority. It is not a question of choosing it from among other possible equal discourses. It cannot come into contact with other voices. Therefore, the authoritative word "can only be transmitted" (Bakhtin, 1981, p. 344).

It is interesting to look at the last utterance (9) in light of Bakhtin's theory. The conversation has lasted for some time and is about to end. Then, for the first time during the whole conversation, this particular teacher has something to say that the teachers in his team need to talk together. Perhaps, they have enough to do and they do not have time to participate in the project. What is interesting to note is that none of the other participants comment on this utterance. Earlier in the conversation his colleagues have been eager and involved participants, who were enthusiastically commenting on each other's utterances. However, they do not comment on this particular utterance. Why does no one challenge what the teacher says? Why does he get no response? Could the answer be so banal that the meeting is winding down? Time is almost up, is everybody thinking eagerly about going home? Or considering Bakhtin's theory may be another answer that would be found in the words which this particular teacher uses. And here, the most important word appears to be "time". The authors can say that it is as if the utterance's topic is fused with authority (Bakhtin, 1981), as if the words have power (de

Shazer, 1994). None of the other participants even question the utterance, which is interesting when the authors know that the teachers already agreed to participate in the project at the end of the previous school year³.

Prolepsis

Rommetveit (1974; 1979) claimed that whatever is said, meant and understood has as its prerequisite that something else is taken for granted and that there is a tacitly assumed commonality with respect to interpretation. For example, when the researcher and the teachers in Team 2 are gathered on this particular day in August, what is tacitly taken for granted is that they should meet and discuss how to start the action research project. According to Rommetveit (1974; 1979), every interactional code is contingent upon some kind of tacitly taken-for-granted agreement with respect to interpretation. When a speaker talks to listeners, she/he assumes through a tacitly endorsed contract that they are talking about the same topic.

According to Rommetveit, what is addressed and what is tacitly taken for granted in any particular case of social interaction depend upon background experiences. Thus, one could say that on the basis of background experiences, the participants know the topic of the conversation. They have already discussed and agreed that they will participate in the project and they reached agreement at the end of the previous school year. However, in this particular setting, the agreement is never spelled out and for the majority of the participants, it appears to be taken for granted. It is in this connection that Rommetveit's notion of prolepsis is interesting. Prolepsis refers to a communicative act where the speaker presupposes some unexpressed information. According to Rommetveit, the use of presuppositions presents the listener with a challenge that forces him/her to construct a set of assumptions to make sense out of the speaker's utterance. When looking at the conversation presented above, it appears as if the participants have various presuppositions. It is obvious that the group is split. While the great majority have tacitly agreed that they should talk about how to start the project, one teacher appears to have another understanding of the situation and discussion. This leads the authors to another theoretical concept that is useful in the interpretation of the conversation.

Inter-subjectivity

According to Wertsch (1984), inter-subjectivity exists between participants who act in the same setting when they share the same definition of the situation, and know that they share it. Other similar definitions of inter-subjectivity range from a mutual understanding that is achieved between people in communication (Rogoff, 1990) to the sharing of a social world through the process of negotiation (Putney, 1996). Inter-subjectivity is also described as a space where the participants connect and create mutual understanding (Wink & Putney, 2002).

Above, the authors have seen that Wertsch (1984) connected inter-subjectivity to the concept of situation definition. A situation definition is the way a setting or context is represented or defined by the participants in the setting. When interlocutors approach a setting with various situation definitions, it may at first be difficult to see how they could carry on with the interaction. According to Wertsch (1984), it is when dealing with this problem that the concept of inter-subjectivity arises. Hence, inter-subjectivity exists when the participants share

³ Many issues are vying for the teachers' attention, and many teachers feel that demands are piling up and that many good intentions of implementing worthwhile teaching programmes for their pupils never manage to see the light of day in their hectic workday at school. Thus, teacher 5 is not alone in his feeling of not having time. As in any other profession, plans, regulations and budgets determine the framework for professional freedom (Arnesen, 2004): A survey of members of the Union of Education Norway carried out in October 2006 shows that six of 10 members feel that they have little or no freedom to determine what they do. The same survey also points out that a quarter of the union members feel that their freedom has declined during the last five years (Retrieved from <http://www.utdanningsforbundet.no/UDfTemplates/Page>).

a situation definition. In the first part of the conversation presented above, it appears as if the participants have the same definition of the situation, and it also appears, as if they have an inter-subjective understanding of what should be discussed. However, this is not the case. There are at least two situation definitions in the group, something that becomes clear when the meeting is about to end.

To specify how the negotiation of an inter-subjective situation definition occurs, Wertsch (1984) focused on semiotic mediation. Inter-subjectivity is often created through the use of language. Even though different individual intra-mental situation definitions are involved in the setting, inter-subjectivity can be established if appropriate forms of semiotic mediation are used in the communication. Particular ways of talking about objects, events and tasks in a setting determine the level at which inter-subjectivity is to be established (Stone, 1993; Wertsch, 1984). Rommetveit (1979) also focused on the fact that any situation, event or object has many possible interpretations and added that what the participant in question experiences of what is going on is a “private” affair. However, these private experiences can be talked about, and can thus become a shared social reality between the participants in the situation. Rommetveit (1979) maintained that, “Communication aims at transcendence of the ‘private’ worlds of the participants. It sets up what we might call ‘states of intersubjectivity’” (p. 94). As the participants in a setting may have different definitions of the situation, they may run into problems of establishing and maintaining inter-subjectivity. In this particular conversation, the various situation definitions are not talked about and discussed by the participants. They do not negotiate towards a shared social reality, and therefore, the meeting ends before they achieve an inter-subjective understanding of the action research project.

Discussion

The conversation is connected to a particular action research team, it happened at a particular point and in a particular socio-cultural setting in time. It has happened once and will never be repeated in the exactly same way again. Even if it is unique, it is also common: Studies (Bjørnsrud, 2005; Carr & Kemmis, 1986; Tiller, 1999) showed that while some participants in action research projects enter development processes with an open mind and positive intention of participating, others may resist and refuse to participate. In this text, the authors have showed how words mediate these two positions. As stated in the introduction, the aim of the text is not to give any fixed answers or solutions, when it comes to challenges that are connected to resistance or hesitation. Rather it is to offer a thinking tool (Gudmundsdottir, 2001) for researchers, teachers and others who are concerned with the development and learning in schools. The thinking tool the authors offer here comprises of the conversation and the analysis of it. Some words and utterances open for input from others, while other utterances close and shut off input. In our study, it appeared to be the question of time that ended the conversation. In other action research teams, it can be other issues or words that may have the same authority fused to it. The authors suggest that it can be useful for participants in any action research team to be aware of the power of words. Because action research processes are interactive, and it is expected that all the participants should cooperate and be positively engaged. As the authors have seen, Bakhtin’s (1981; 1986) notions of the internally persuasive word and the authoritative word are helpful in giving further insights into this particular conversation.

In the analysis of the conversation, it also appeared as if the participants entered the meeting with various ideas or presuppositions which was to be discussed. While the great majority of the participants had a tacit agreement that they should talk about how to start the project, one teacher appeared to have another

understanding of what should be the topic of the meeting. When starting any meeting, the authors suggested that it is who are important to state clearly what should be discussed and talked about. In this way, one could prevent misunderstandings. As the authors have seen, Rommetveit's (1974; 1979) notion of prolepsis is useful in this connection. The analysis of the conversation further shows that the participants have different definitions of the situation. As the authors see it establishing inter-subjectivity, it is important for the ongoing dialogue. At the same time, it is important for the team's further cooperation, as inter-subjectivity also points ahead (Rismark & Sølvsberg, 2007). In our opinion, the notion of inter-subjectivity may be helpful for any research action team.

One can imagine that a conversation like the one the authors have presented will influence all participants, the teachers committed and interested in the project, those who resist and hesitate, and the researchers. One can suppose, from the point of view of the committed teachers that such an occurrence may lead to frustration and irritation. At least for a period of time, one can imagine that the teachers talk about and reflect on what happened in the meeting rather than to focus on the action research topic, adapted teaching. One can further suppose that such a dissension in the team could lead to other contradictions and perhaps problems with further cooperation. And what about the teacher who hesitates and resists? What does it mean for him doing so? How does he experience the situation he has brought himself into? Has he reflected on what effect his resistance may have on his two colleagues in the sixth grade team, and on the other participants in the action research team? The questions the authors present here are just some of many that might arise, if members in a team have different understandings of participation in an action research project. The point here is not to outline all the possible problems that might occur, if such things happen. Rather it is to be aware of the possibility that such dissensions may occur, and to reflect on in any action research project.

Furthermore, what about the role of the researcher? Should the researcher initiate additional motivational efforts for those who resist? Should there be attempts at persuasion or should people be ordered to take part? In other words, should resistance be accepted, or should perhaps the problem be left to the head of the school? These questions illustrate the complexity of action research processes. At any rate, in this particular context, the resistance appears to be connected to the teachers' experience of the lack of time. According to Carr and Kemmis (1986), there are "objective" aspects of situations that may constrain teachers' actions. There are "objective" aspects that are beyond the power of particular individuals to influence, while at the same time, people's "subjective" understanding of situations can also act as constraints on their practice. They also claim that the action researcher should attempt to discover how situations are constrained by "objective" or "subjective" conditions. When it comes to this particular project, the authors suggest that there are subjective aspects that influences teacher 5, because all the teachers are given equal time to participate in the project, and none of the other teachers are concerned with the question of time in the initial phases of the project. This leads to the final question, what should be done when such things occur?

Within the framework of socio-cultural theory there is no fixed, universal answer to this question. Learning and development work is complicated, context-dependent and at times an unpredictable activity. Bearing this in mind, it is neither desirable nor possible to operate with fully prescribed instructions on how problems are to be solved. Rather than recipes, the participants, i.e., the teachers and the researchers, should talk about problems that occur during an action research process and find solutions that fit the particular situations and contexts that they are part of. Although there are no fixed answers, the authors suggest that written texts about various problems connected to action research processes may be helpful, when it comes to

initiate reflections and discussions. Vygotsky (1978) claimed the capacity of humans to reflect, learn and act depends to a large degree on mastering cultural tools. It is within this theoretical framework that this study is useful: The text may be regarded as a cultural tool, a mediating artefact (Engeström, 1999), or a thinking tool (Gudmundsdottir, 2001) for teachers, researchers and others concerned with action research. In this way, it may hopefully lead to reflection and be helpful, when action research teams should find suitable solutions to similar problems of their own.

Conclusions

Since the startup phase of the project much has happened in the school as a whole, as well as in teacher Team 2. Throughout the school year, the researcher connected to Team 2 and teachers from Grade 5 to Grade 7 have cooperated in an exploratory partnership on their topic. After having discussed the problem with the principal and the leader of Team 2, the researcher decided not to push the teachers from Grade 6 to participate in the project, although it was open for them to participate, if they changed their mind. However, the teachers did not, however, make any attempts to contact the researcher during the school year. At the end of the school year, the researchers in the project arranged a knowledge-sharing meeting for the researchers and the teachers involved in the project. Teachers from the Grade 6 also participated in this meeting. The teams presented what they had worked on and the experiences they had gained throughout the school year. During the presentation, the Grade 6 teachers expressed for the first time that they were ready to participate in the project:

We have not come as far with our work as the teachers in the seventh grade, because we have not yet met with the researcher... but our work in the time ahead will actually be to talk with the researcher about the research question... We are in the queue and waiting, we know that she is very busy working with the other grade, so we expect that when she is free she will contact us.

This came as a surprise both to the other teachers in the school and to the researchers. This episode raises new research questions. What has actually happened? Are these expressions of a real subjective desire to participate? Or is this the result of them feeling pressure? It may also be possible that these teachers needed time to gain a positive attitude to participation in the project. The authors plan to explore this further.

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