Capacity Building for School Gardening: A Swedish Case Study

Petter Åkerblom, Swedish University of Agricultural Sciences, Sweden

Abstract

This article reflects on experiences from Swedish research on school gardening and greening school grounds. A process-orientated case study in two Swedish cities is discussed, based on future workshops as a platform for situated capacity building in interaction between stakeholders in the in-school context and stakeholders from outside the local school, such as school ground planners and school ground administrators.

The case study indicates that using the future workshop as a research method is a way to involve the stakeholders as subjects in the production of new knowledge, which means a collaborative production of both articulated and tacit knowledge. The case study shows that new approaches to school ground management could help a school make its outdoor environment more suitable for educational purposes, including gardening.

Résumé

Cet article tient compte des expériences d'une recherche suédoise sur les jardins scolaires et l'écologisation des cours d'école. On discute d'une étude de cas axée sur la poursuite du processus dans deux villes suédoises. On fonde cette étude sur de futurs ateliers qui serviront de plate-forme pour le développement délimité des compétences, en interaction entre les parties intéressées dans un contexte de classe, et les intéressés de l'extérieur de l'école locale, tels les planificateurs scolaires et les administrateurs d'école. L'étude de cas donne à entendre que l'utilisation d'ateliers futurs comme méthode de recherche est une façon d'impliquer les intéressés en tant que sujets dans la production d'un nouveau savoir, lequel signifie une production collective de deux savoirs, l'articulé et le tacite. L'étude de cas montre que de nouvelles approches à la gestion des cours d'écoles pourraient aider une école à rendre son cadre extérieur plus convenable à des fins éducatives, y compris le jardinage.

This article hopes to contribute to the importance of school ground greening by reflecting and discussing experiences from Swedish research focused on the educational use, development, and management of school gardens. School gardens, as well as support from the municipal services for stimulating gardening activities, are comparatively rare in Sweden (Åkerblom, in press).

The starting point for the article is an interview study with *teachers*[1] working with school gardening, later gathered into a licentiate thesis (Åkerblom, 2003). The aim was to investigate, characterize, and discuss the interviewees' conceptions of the impact and importance of school gardening. The qualitative study, in which 20 teachers of children in the 5-12 year age range were interviewed, is based on the qualitative research interview (Kvale, 1987, 1997). Experiences and assumptions from that work have influenced the design of the project in this article, which for that reason is focused on adults' conceptions.

Greening school grounds requires the involvement of a range of stakeholders to improve the outdoor settings for educational purposes (Dyment, 2004a). In this article I will discuss a process-orientated experiment in two Swedish cities, Lund and Uppsala, where stakeholders in the school itself interacted with such stakeholders as school ground planners and school ground administrators from outside the local school unit.

The overriding aim of the article is to contribute towards a greater understanding of the impact of strengthened support of school ground management. The purpose is to discuss in what way new approaches to school ground management could help a school make its school grounds more suitable to educational purposes including *gardening*.[2] How can educators and administrators interact to increase the use of the outdoor environment in the school's educational activities?

According to my earlier experiences (Åkerblom, 2003, 2004, in press) the school garden can be regarded as a tool for alternative teaching and learning strategies, as well as being perceived as a social hub (Åkerblom, 2003). For example, the interviewees in my earlier study mentioned that their interest in school gardening started with their formulating the idea of giving children an opportunity to follow food production "from field to fork." The same teachers, however, stated that the social aspects of gardening soon appeared to be more important than the "field-to-fork" perspective.

For most of them, these social aspects became the main reason for continuing with school gardening. They felt that the garden promoted a variety of social situations that led to new social relationships between adults and children. For that reason the school garden also came to be regarded as a focal point between the school and stakeholders in the local community.

In addition, and worth noting according to the theme of this article, the school garden was perceived as a reason for establishing such contacts. One impact of establishing such contacts could, as it was expressed in my empirical findings, result in greater opportunities for professional support in handling and preparing school grounds for gardening (Åkerblom, 2003). In general the interviewees expressed a lack of such support, calling for more time for developing educational ideas, and for more hands-on support in establishing connections between practical outdoor activities and teaching—results that correspond well with Rickinson et al. (2004) and Dyment (2004b, 2005).

Such a lack can of course be purely subjective. For instance, teachers can explain the reasons why they do not garden with their pupils in terms of "lack of support," even if the real reason might be something else. On the other hand, if we regard these conceptions as expressions of a real belief in that sense, more support would intensify outdoor education activities. What would happen if these teachers got the support they asked for?

School Ground Management in Sweden

It may be helpful to clarify some common attributes of municipal school ground management in Sweden that are possibly different from those in other countries. To begin with, school grounds and school gardens in Sweden and corresponding support from the municipal services for stimulating greening and gardening activities, are relatively rare. It is common for responsibility for education to be vested in one administration, and responsibility for buildings and ground management in another. Funds for running the schools are channelled from the educational administration to each local school. The two cities focussed in this article are both good examples of this development, even if they are organised differently.

Lund has 101,000 inhabitants and is situated in the very south of Sweden, close to Denmark and Copenhagen. It has 120 pre-schools and 50 compulsory schools (children aged 6 to 16). In Lund, each local public school administers all its own costs, including the rent charged by a municipal housing company for the school building. The rent does not include maintenance of the school grounds. For that reason, schools in Lund are free to organize their own maintenance by contracting professionals or doing the job on their own.

Since 1992 the educational administration in Lund has supported school ground development with educational backing and some funding for materials, such as stone, plants, soil, and tools. The basis for this work is a field study centre called *Naturskolan*, serving all schools in the town with activities to help teachers adapt their school grounds to gardening and other educational opportunities (Naturskolan, 2004). Today there are approximately 150 teachers connected to a network that meets at least twice a year to practise tree planting, making ponds, and constructing flowerbeds to attract butterflies etc.

Uppsala is situated 80 kilometres north from Stockholm. There are 182,000 inhabitants in Uppsala making it the fourth biggest town in Sweden. The city administers 170 pre-schools and 80 compulsory schools, the rent for each unit being charged by the municipal housing administration (the Real Estate Office). The cost of school ground maintenance is included in the rent. The maintenance is done either by people employed by the municipality or by private contractors and maintenance companies. The basic data for the contractors, who bid to be contracted for school ground maintenance, are described in bidding documents prepared by the Real Estate Office.

The reasons for choosing Lund and Uppsala for this case study correspond to similarities and differences between the cities. The infrastructure, employment, and labour market are comparable. Both are "university cities" and have cathedrals. Yet the underlying principles of school ground management are quite different, as are other conditions for school ground projects. When the case study was introduced, Lund had (as mentioned) more than ten years' experience of organized school ground development, and was the most well-known and extensive example in Sweden. That fact made Lund an interesting arena for testing models for local capacity building. To increase the opportunities for comparing and valuing the field work I looked for a similar city without corresponding school ground development. I chose Uppsala as my second case because it had hardly any experience at all at the administrative level of greening school grounds or school gardening.

Methods and Procedures

As the case study took shape in autumn 2001, concepts like collaborative learning (Ljung, 2001) and ideas about inter-professional co-operation influenced the planning. Since we felt from the very beginning that it was important to involve the participants in the decision-making process of implementing the project, the choice of research method was not specified until after the project had begun.

According to an emerging development of new methods for participation, communication, and interaction in both research and practice, Svensson, Brulin, and Ellström (2002) emphasize the importance of interactive and collective learning processes based on a community of inquiry. Such processes require active participation of all the people involved, and the authors state that in general this presupposes an open-minded atmosphere, an analytic approach, and consensus among the participants as to what the problems are. The participants are influenced by a participatory and reflective approach to the process where they create knowledge in a local and familiar context. The role of the participant can be described as that of a reflective practitioner (Schön, 1995). The importance of interaction is also emphasized by researchers in the planning field, who focus on planning processes characterized by collaborative planning (Innes & Booher, 1999).

There are several methods for capacity building based on interactive and collaborative learning processes, such as knowledge workshops (Lieberg, 2002; Lindholm, 2002). For this project we chose the *Future Workshop* (Denvall & Salonen, 2000; Jungk & Müllert, 1987). This method is consciously based on relatively few rules: a clear agenda, prohibition of prolonged discussions of proposals and ideas, and work to promote both creativity and logic. We thought this method could be useful in making it possible to break away from daily routines and challenge the force of habit. My role became that of the

participatory action researcher, partly inspired by experiences from similar projects (Lewis, 2004). The empirical data was collected by participant observation, field notes, and photographs.

The project was introduced during the winter of 2001-2002. The very first contacts were with the municipal real estate office (in Uppsala) and the parks, streets, and traffic administration (in Lund). Both then took the initiative to arrange a meeting in each town to introduce the ideas and possibilities. Representatives of three schools in Lund and two in Uppsala that we knew were interested in outdoor activities and school gardening were invited to meet city officials responsible for school ground management. These were people from municipal real estate offices, maintenance companies, and other people connected to the particular school. In Lund we also invited the city gardener and the Naturskolan field study group. Furthermore we invited three researchers, all based at the Swedish University of Agricultural Sciences and all with experiences from landscape management, school ground planning, or collaborative learning.

Both meetings indicated that people with different professions and "working place cultures" used different terminology. Our mutual impression was that we had difficulties understanding each other well enough to handle the situation successfully. The conclusion was thus drawn that we must do something to help participants get to know each other better. For that reason two two-day future workshops were arranged in Lund and Uppsala in April, 2002, respectively, followed by a one-day workshop six months later (Åkerblom, 2002; Tillström, 2002). The head of the workshops was hired especially for the task, and was specially trained as the leader for future workshops.

Results

Findings Common to Uppsala and Lund Projects

There are both similarities and differences in the empirical findings from Lund and Uppsala. First I will present experiences from the general implementation and then experiences more specific to each workshop. The quotations are not verbatim but have been interpreted from field notes.

In the beginning of each future workshop, the participants were requested to express their worst thoughts on greening school grounds. The idea was to identify and evaluate, and give priority to, the *greatest problems*. When analysing this criticism phase of the workshop, a pattern of four main themes could be identified (in sequence):

- unclear attitudes and prejudice against the role and use of school grounds (expressed as the greatest problem);
- unclear aims and descriptions of educational goals and lack of time to explore the outdoors;

- wear and vandalism; and
- funding.

In general, these experienced barriers correspond well to the observations made by Rickinson et al. (2004), as well as Dyment (2004a, 2005). One of the most common statements when brainstorming was "lack of money." When reflecting on the problems and giving them priorities in group discussions, funding in this experiment was not considered to be the most important problem.

A future workshop also allows people to express their fantasies and wildest dreams. The fantasy phase in this project resulted, among other things, in dreams about big lakes at the school ground, gigantic flower fields, tree houses, and hammocks in the trees for everyone. But the point of future workshops is to move one step further, to make the wishes more specific and realizable during an anchorage and support phase. Here more than 15 plans of action were formulated, each plan with a named person as responsible for its realization. Among the plans were ideas of how to:

- make space for in-service training for teachers in gardening, planting, and how to apply such work to environmental education;
- strengthen the support of "green" competence by establishing a greening school ground in-service for caretakers, "ecological custodians";
- compile educational school ground maintenance instructions;
- keep up our communication by establishing an interactive website to share local educational ideas and experiences; and
- develop the bidding documents for a school ground maintenance with educational features.

After the first two days together people mentioned that the work had led to better understanding between the different professions participating in the workshop. As one of the teachers spontaneously expressed it, "When we first met we soon understood that we all have the same goal, all of us want school grounds to be good environments." This statement was connected with a common experience of a better understanding of each others' professional terminology and "working place cultures." The fact that this can be an "aha experience" is expressed in this exchange:

> *Pre-school teacher*: Oh, now I finally know what a "contractor" is!
> *Her colleague* (laughing): Yeah, but we didn't know the other day. You remember when they came in and said hello, we said welcome and thought they were new parents!

One of the city officials noted that the workshop was the first occasion for different professionals to meet to discuss greening school grounds, and said at

the end of the session: "This was great! You know, it is so seldom we do things like this, sitting down and listening to each other for hours. This way was really interesting."

Six months later the group met again and discussed what had happened since last time in terms of the decisions that had been made then. The stakeholders' remembrance of the workshop in April can be summarized by this person in Lund, who said: "What a wonderful feeling that so much can happen in such a short time! So many people with so much know-how and so much desire to do things together—that was my main feeling when we left each other." But what had happened in the meantime with the action plans? Some of them had not yet been launched, but some of them had begun to be realized.

The follow-up discussions focused on how to turn the action plans into action. A general assumption was to give higher priority to long-term and sustainable school ground planning with the aim of continuously involving the users, which included clarifying fields of responsibilities. This is illustrated by this quote from an city official: "Contact the school a year ahead of time when there are changes involved. See to it that the information doesn't just stay with the principal but gets to the right person so it can be conveyed correctly."

The participants decided to use the plans primarily to strengthen the support of competence on greening and maintaining school grounds by developing "educational management plans," create opportunities for in-service training for teachers, custodians, and managers, and keep up communication via websites and local events.

Findings Particular to Uppsala

Uppsala had had no previous history of organized school ground development when the future workshop was carried out, and perhaps because of this clean sheet, the stakeholders involved tended not to see problems (compare this to Lund, further on). The real estate office realized during the workshop that outdoor environments can be also regarded as a place for teaching, illustrated by this city official: "When we in technical management realized that the school ground is a teaching resource, we also understood that it shouldn't just be regarded as a place for play and recreation. We're responsible for the whole kit and caboodle." This statement may be one of the explanations for why the administrators now have revised the regulations for school ground maintenance. The point was to establish 10 hours "adjustable time" a year for contracted contractors, as well as to ensure this in the bidding documents for the future. The aim was to make sure that the schools were given influence over school ground maintenance, so that they had ten hours in which to decide what sort of help they needed in consultation with the contractor.

As a spin-off from the follow-up meeting the participants met again in March 2003 to decide, among other things, about arrangements for a study tour to

Lund, which was carried out in October 2003. After the study tour the municipal real estate office continued its engagement for greening school grounds and for the future workshop as a method for new initiatives (see end of article).

Findings Particular to Lund

In Lund, in contrast to Uppsala, greening school grounds had been in operation for a long time when the future workshop was first introduced. During the criticism phase, it became clear that there were hidden conflicts in the group. For instance there was one teacher who experienced little understanding from the school ground services when she presented ideas for greening the grounds: "There's no point asking them, it is much better just to do it! When we ask, those big shots always say no." There was also an administrator who maintained: "Teachers always want to plant trees too close to the buildings. Well, we can't accept such ideas. We're responsible for seeing to it that there are no roots in the drainage and no branches ruining the facades."

This example of different point of views in professional thinking was confronted face on during the workshop, giving the involved people opportunities to see the problems from new angles and turning the discussion in a mutual and positive direction. For instance, after the follow-up meeting in October 2002, the participants were convinced of the need for a common process to continue, as illustrated by the city gardener who said: "Let's not call off the greening school grounds project today. Let's do something with our enthusiasm, let's continue as a working team."

This resulted in the establishment of a local network aimed at getting support for school ground development primarily from the local government politicians. The outcome of this networking was a continuing process resulting in a decision in the municipal executive board in the spring of 2003 calling all municipal administrations with any responsibility for children to follow a seven-point programme as part of a demonstration of political will to promote better outdoor environments for children and youth. Briefly, the document lays down that such places should be characterized by holistic thinking, offer educational opportunities, be functional for children's play and development (including disabled children), and function as a resource for the local city district. Furthermore they must be safe and healthy places and stimulate ecological diversity.

An example of response to this calling is the proposal from the technical management administration and the city planning office to include these seven goals in the administration's revised plan for urban greening and nature conservation (Lunds kommun, 2003). The same goals have also been integrated into the newly revised municipal programme for education policies. The school ground development that once started on the grassroots level was now also sanctioned from above with the acceptance of the seven goals by local politicians.

Some of the participants were not very interested in the task when they met for the first time. But during the first day one of the participants said: "I couldn't understand why I had to be here, but everything so far has been very interesting." The quotation shows that the leader was successful in getting the participants interested. This is an essential function in interactive learning processes in our time, which increasingly take place in the interface between businesses, research environments, and various kinds of organizations. The aim is to organize platforms and arenas for establishing relations that promote "envelope-pushing" learning processes. For this to work, the processes also need a "director" who can add the necessary fuel to maintain the energy in the learning process (Svensson, Brulin, & Ellström, 2002). In this context, the leader of the future workshop can be seen as such a director.

Discussion

Many people argue for school grounds as an important educational resource, among them researchers as Jeffrey and Woods (2003), who discuss the role of outdoor spaces for learning through the environment. Other people argue that school ground activities are time-consuming and use up resources in the form of time and money and thereby compete with other school activities. Nevertheless as soon as school grounds are accepted as an educational resource, a process begins to unfold that challenges traditional attitudes to what school work is all about. The growing interest in greening school grounds can be seen as the stakeholders' interest in complementary methods of teaching that allow children more ways of learning based on principles for *situated learning* (Lave & Wenger, 1991; Marton, 2000).

Resnick (1987) uses the term *situation-specific competencies* when discussing the differences between learning that takes place in school (more traditional teaching methods) and learning that takes place in the society outside school (based on more informal learning). She characterizes one of the main differences as a comparison of "generalized learning in school versus situation-specific competencies outside" (p. 38). This could be compared with the view on the school garden (mentioned above) as a reason for establishing relations with the community, and as embodying competencies relevant for place activities in school characterized by gardening.

The case study implies that interaction with stakeholders outside the school, according to Resnick's terminology, could bring opportunities for teachers to work more situation-specifically. In other terms, a future workshop could be described as a *socio-cultural tool* (Säljö, 2000) for exploring and understanding such situation-specific relationships.

Greening school grounds can in other words be seen as a platform for situated capacity building based on interaction between stakeholders in the in-school context and in the outside school context. This could be one reason

why the property administrator in Uppsala revised the bidding documents: new knowledge was added to his earlier experiences of the basis for school ground management that resulted in the need for new regulations.

The dialogue between the people involved grew gradually stronger during this experiment. Even if the case study was only a small part of the participants' everyday workday, the project indicated that attitudes and prejudice against the role and use of school grounds were challenged when teachers, principals, city officials, and contractors co-operated. Some of the barriers experienced turned into stumbling blocks that became experienced as possible to overcome. But not everything worked out well. For instance, interest in the follow-up meeting was low, with one-third of the participants missing.

The case study is on too small a scale to permit conclusions on a more general level, but there are indications that when people learn more about how other people think, they can more easily understand their own thinking both as researchers and practitioners. This could provide new perspectives on one's own and other people's professions. For instance, this case study implied that conflicts can be turned into consensus when people from different professions, but with a shared responsibility for a certain area of education, meet to discuss a common theme from their different points of view.

The Future Workshop as Research Method

A future workshop is just one method of capacity building where people get involved in sharing and comparing problems in a community of inquiry. To be a participatory action researcher in such communities is not easy. You have both to be a participant observer and an observing participant. I found it quite difficult to combine these roles in this experiment. Nevertheless it was a part of my own learning process, resulting in both research-based and practitioner-based knowledge.

In one way it is meaningful to separate these aspects of knowledge from each other; at least, research knowledge is sometimes easier to articulate than tacit practical knowledge. But in practice they are intertwined. The language act, where stakeholders understand and begin to use other professionals' terminology, can be an example of how practitioners' (tacit) knowledge is transformed into more articulated knowledge. Using the future workshop as one's research method is an opportunity to involve the stakeholders as subjects in the development of new knowledge, and in collaborative production of both articulated and tacit knowledge.

The Child Perspective

Many researchers mention the necessity of incorporating the children themselves in the work of transforming their physical environments (Chawla, 2002; Hart, 1997). For example, such research claims that young learners, through

their engagement in school ground greening projects, can learn skills related to democracy, responsibility, and citizenship (Dyment, 2004b). The purpose of this case study was to explore how educators and administrators can interact to increase the educational use of school grounds. The experiment resulted in a stronger understanding of each other's professions that can be seen as grounding a common and more confident view of school grounds before incorporating children and youth. Adults' experiences of interacting with other professionals could lead to trust, mutual understanding, and shared problem frames, which can be a convincing starting point when incorporating schoolchildren in local capacity building.

Nevertheless, the lack of participation on the part of the children was noticed by the stakeholders, and as a spin-off from the future workshop in Uppsala a new project for rebuilding an old school ground was introduced in 2003, with many of the same stakeholders taking part. Prepared for and experienced in cross-professional interacting, the stakeholders from the very beginning incorporated students of 15 in a modified future workshop. The design of the restored school ground, now under construction, is based on the young people's ideas. By sharing the decision-making and power with the real end-users of the school ground, the adults expressed their wish to listen to the young people and work with them to effect change. It is too early to tell whether this will contribute to a sustainable turn in the management of school grounds in Uppsala, but there is on-going research connected to the project (Paget, 2004).

Planting and cultivating activities can increase the beauty of the school ground, which over time can alter the local culture of the school. That local culture can evolve, with educational, recreational, and esthetical aims in a locally-based community of practice. From this perspective, school gardens can be regarded as place-bound expressions for a development engineered by people and nature.

Notes

1 The term "teacher" is used throughout as a catch-all for different professionals working in educational activities with children and youth in schools and preschools.

2 In this article gardening in school is used throughout in a broad sense for school grounds laid out with flowers, trees, bowers, ponds, benches, etc., and used for education and recreation.

Notes on Contributor

Petter Åkerblom is a Licentiate of Agriculture and Landscape Architect in the Department of Landscape Planning Ultuna, at the Swedish University of Agricultural Sciences in Uppsala, Sweden. This autumn he will defend his doctoral

thesis on the theme "Learning by Gardening: Educational, Historical, and Communicative Conditions for School Gardening and School Ground Planning."

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