Teachers Facing the Challenges of Curriculum Change in the Small Rural School in Finland.

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ABSTRACT Over half of Finnish elementary schools are small schools employing 1-3 teachers. This paper examines the implementation of new national curriculum policies in two small elementary schools. The new policies, adopted in 1994, stress autonomous control of learning and encourage each individual school, in collaboration with the community, to draw up its own curriculum on the basis of general national guidelines. Teachers are encouraged to help students become familiar with the local environment and the needs of their own community. One of the schools studied, Suvila School, emphasized the interaction between the school and community. Changes proceeded in phases as teachers gained experience. Cooperative work in small multi-aged groups was introduced. Activity-oriented learning was accomplished by extending topic-unit duration, allowing time for student project work. Teachers functioned as instructors and work supervisors. In contrast, teachers at Ranta-Sointula School were openly critical about implementation of the new school-based curriculum. The head teacher was not interested in in-service training and cited a lack of teacher cooperation. Parents wanted traditional teaching of basic skills. The curriculum preserved traditional school practices of textbook-centered curriculum and teacher control. In general, curricula are based on certain philosophies and beliefs about education that shape teachers' actions. Therefore, curricular changes involve changes in teacher beliefs and depend upon teachers' readiness for cooperation and experimentation. (Contains 58 references.) (TD)
TEACHERS FACING THE CHALLENGES OF CURRICULUM CHANGE IN THE SMALL RURAL SCHOOL IN FINLAND

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INTRODUCTION

1.1 The purpose and aims of the paper

The purpose of this paper is to describe curriculum change as seen in a small rural school in Finland. The aim is to study the effect of the changes on curriculum policies and teaching practices. The examination will exploit previously published empirical research. In-depth analysis will compare the research data to data obtained from qualitative case studies. Two small schools had been selected as the object for the latter studies.

This paper will present parts of three comparative research projects carried out at the University of Jyväskylä in Finland:

1. A Joint Research Project on Teacher Quality initiated by OECD/CERI
2. A Joint Research Project on Active Learning organized by OECD/CERI
3. A Research Project on Curriculum Change in England and Finland jointly carried out by the Department of Educational Studies, University of York and the Department of Teacher Education, University of Jyväskylä.

(Cf. Kimonen & Nevalainen 1993; 1995; 1996.)
1.2 Curriculum reform in Finland

The school system does not merely seek to adapt to ongoing changes in today’s world, it wants to play an active part in the development process. This was the basic principle behind the curriculum reform of the comprehensive school which took place in Finland during the autumn of 1994. (Elo 1994, 70.) The aim was for the schools to lead the change, not merely to adjust to it. From the beginning the goal was to change over to a new type of curriculum planning, not only to update the old curricula. (Comprehensive School in Finland 1995, 8.) The new school was described as flexible and analytical, its main objective being to encourage children to learn how to learn. Future schools were expected to produce citizens with intellectual curiosity, capable of posing critical questions and finding a wide variety of answers. The reforms allowed each individual school to draw up its own curriculum on the basis of general guidelines confirmed by the National Board of Education. (Elo 1994, 70.)

The development of curriculum reform in Finnish municipalities actually began in the middle of the 1980s, and the first curricula for individual schools were written during the early 1990s. The new curriculum allowing schools to focus on local features encourages teachers to broaden their teaching and to take local conditions into consideration. The local curriculum is defined here as a curriculum that is applied in an individual school. The starting point involves making the students familiar with the local environment and related problems, with the economic, industrial and cultural life, and with needs of their own community (cf. Arajarvi & Aalto-Setälä 1993, 66-67; Pirhonen 1993, 46-47).

According to the Framework Curriculum for the Comprehensive School (1994), which provides guidelines for curriculum development, the school’s modus operandi, tasks and distinctive characteristics are to be described in the local, school-based curriculum. The objectives and content of the topic units, school subjects as well as integrated subjects are defined according to the guidelines set out in the national curriculum. Teaching methods and ways of working are also covered. All members of the school community including students’ parents and other people active in the functioning of the school, can collaborate in the writing of the curriculum. The process of writing the
curriculum should be both active and continuous. The aim is to change the school into a learning center, which is in close contact with interest groups from the local community. (Peruskoulun opetussuunnitelman perusteet 1994, 9-10, 12, 15-16.) Therefore, it is necessary to promote active cooperation between schools, the surrounding communities, commerce and industry, as well as to develop the school's own work on the basis of self-assessment (Comprehensive School in Finland 1995, 9).

The curriculum reform was needed in Finland because of the ongoing social change, a desire to improve educational quality and new concepts of curricular theory, learning and knowledge (Developments in Education 1992-1994 Finland 1994, 65). Fundamentally, then, the new Finnish curriculum approach is in accordance with the characteristics describing the current conception of learning. In the new curriculum the student is seen as an active acquirer of information and creator of interpretations. (Atjonen 1993, 238; 1994, 111-112, 118.) (TABLE 1.)

TABLE 1. The new curriculum and learning conception (Atjonen 1994, 111-112)

<table>
<thead>
<tr>
<th>Teacher activity as represented by the new curriculum conception</th>
<th>Student activity as represented by the new learning conception</th>
</tr>
</thead>
<tbody>
<tr>
<td>- teacher's own curriculum or work plan</td>
<td>- individuality, nonconformity</td>
</tr>
<tr>
<td>- meaningfulness, motivation</td>
<td>- meaningfulness, motivation</td>
</tr>
<tr>
<td>- activeness, interpretativeness</td>
<td>- activeness, participation</td>
</tr>
<tr>
<td>- commitment</td>
<td>- experiential approach</td>
</tr>
<tr>
<td>- collaboration, team spirit</td>
<td>- social skills</td>
</tr>
<tr>
<td>- utilization of teacher expertise</td>
<td>- utilization of knowledge basis</td>
</tr>
<tr>
<td>- readiness to implement the curriculum</td>
<td>- readiness to acquire knowledge</td>
</tr>
<tr>
<td>- curriculum entity</td>
<td>- information entities</td>
</tr>
<tr>
<td>- teacher responsibility</td>
<td>- learner responsibility</td>
</tr>
<tr>
<td>- school development plan</td>
<td>- learning environment</td>
</tr>
</tbody>
</table>
1.3 Small rural schools in Finland

1.3.1 Quantitative development

Small schools have traditionally existed in the sparsely-populated Finnish countryside. At present 60 per cent (= 2239) of Finnish elementary schools (3729 in all) are small schools with 1-3 teacher posts. During the school year 1992-1993 there were 50 one-teacher elementary schools (1.3 per cent of the elementary schools), 1352 (36.3 per cent) two-teacher schools and 837 (22.4 per cent) three-teacher schools. (Tilastotietoja peruskouluasteen kouluista 1994, 8.) (TABLE 2.) The number of small schools has, however, varied according to social, cultural and economic conditions. The quantitative development of schools has been connected to both social and educational policy which regulates the number of schools. (Laukkanen, Muhonen, Ruuhijärvi, Similä & Toivonen 1986, 19, 28.) Since the 1960s the network of schools has clearly been growing sparser (Kivinen 1988, 265). Altogether 241 elementary schools were closed during the 1980s (Koulutus. Education in Finland 1991, 33). The rate of school closure increased still further between 1990 to 1993, when a total of 250 lower level comprehensive schools were closed down. The most significant reason for the closure of schools has been the dramatic decrease in the number of students. During recent years economic factors have also become significant in the decision to close schools. (Tilastotietoja peruskouluasteen kouluista 1994, 3-4.)

TABLE 2. Small rural schools in Finland for children under the age of 12 years in the school year 1994

<table>
<thead>
<tr>
<th>Teacher posts in school</th>
<th>f</th>
<th>%</th>
<th>Students in school (7-12 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>1.3</td>
<td>&lt; 14</td>
</tr>
<tr>
<td>2</td>
<td>1352</td>
<td>36.3</td>
<td>≥ 14</td>
</tr>
<tr>
<td>3</td>
<td>837</td>
<td>22.4</td>
<td>≥ 36</td>
</tr>
<tr>
<td>≥ 4</td>
<td>1490</td>
<td>40.0</td>
<td>≥ 78</td>
</tr>
<tr>
<td>Total</td>
<td>3729</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
13.2 Qualitative development

The qualitative development of a small rural school can be studied from the point of view of the school's context, resources, processes and products. In Finland attempts have been made to solve the contextual problems of small rural schools by enriching the life of the surrounding villages and developing their activities. An important developmental goal in the countryside is to strengthen the interaction between the school and the surrounding community. The cultural, material and economic resources of small schools have been developed by training teachers, repairing school buildings, writing teaching material which offers differentiation in combined grades, increasing the financial support for school transport and enhancing resources by applying the time resource quota system in each individual school. Attempts have been made to solve the process-based problems related to teaching, by developing students' independent working skills, applying the period system in teaching, and by implementing outdoor education. Furthermore, the curricula of combined grades have been developed, for example, by unifying the teaching of different grades and by emphasizing the use of local subject material in teaching. An important part has been played by increased cooperation between the school and the home, and through the collaboration between small schools. (Kalaoja 1990a, 93-110; 1990b, 1-3, 91-102.) Below we will describe briefly two small rural schools in Finland, their physical, material and human resources.

Two small rural schools

Suvila Lower Level Comprehensive School

Suvila Lower Level Comprehensive School is located in Central Finland, in a municipality of some 5500 inhabitants. About half of the working population earn their living in trade, transport and other service sectors. About a quarter work in agriculture and forestry and a quarter in industry and in the building sector. There are eight lower level comprehensive schools operating in the municipality. Six of these are two-teacher schools. One of the small schools is under the threat of closure. In addition, the municipality has an upper level comprehensive school, an upper secondary school and a special school. The village community surrounding the case study school consists of
200 inhabitants, of whom the majority earn their livelihood in farming, forestry and in the log house building industry. The village no longer has a shop or post-office, but the municipal mobile library comes to the village once a week. The inhabitants of the village community have taken initiatives to improve their living conditions through local activities. Such activities involve regular social collaboration. A village committee has also been formed. Suvila School is the only common meeting place in the village. The inhabitants of the village community actively use the school for their hobbies and meetings. Consequently, the school often enjoys support from the local community, including maintenance of outdoor sports facilities and equipment, participation in outings and school camps, and visits to the school as specialists in various fields of work.

The case study school building was constructed in 1922 and renovated in 1989. Teaching facilities, equipment and learning materials are both modern and appropriate. The school has three classrooms, a kitchen, dining room, teachers' room and a number of social facilities. Since the school has no special gymnasium, indoor sports are taught in the school's largest classroom and in the sports hall at the municipal center. A small separate building in the vicinity of the school has been restored for the teaching of handicraft. The school grounds include a sports field, a store for games equipment and a covered space for playing. It is possible to teach, for example, nature study and outdoor sports in the school grounds.

There are two class teachers, a peripatetic English teacher, and a peripatetic special teacher. One class teacher is the head of the school. In addition to the teachers, currently two teacher aides and an ancillary worker who acts as a cook, cleaner and caretaker work at the school. The school board is composed of six members, a teacher and five parents. A public health nurse visits the school once a month. At present (spring 1995) the school has 27 students who are divided into two basic teaching groups. These combined grades, as they are known, comprise eight students from grades 1-2, and nineteen students from grades 3-6. The teaching staff are well qualified. The head teacher of the school, Kalle, has graduated from a 3-year teacher training course and subsequently he has completed his degree as Master of Education. He has worked sixteen years as a teacher. The other teacher, Tiina, graduated eight years ago from a modern 5-year teacher training program, leading to a degree as Master of
Education. After their basic training the teachers have regularly taken part in teachers’ in-service training.

**Ranta-Sointula Lower Level Comprehensive School**

Ranta-Sointula Lower Level Comprehensive School is located in a Central Finnish municipality with 5000 inhabitants. Some fifty per cent of the population are employed in the service sector. Approximately a third is in farming and forestry and a sixth in industry. There are ten lower level schools in the municipality, eight of which employ two teachers. Two of the small schools are under threat of discontinuation due to decrease in the number of students. There are an upper level comprehensive school, an upper secondary school, and a special school in the municipality. Ranta-Sointula School is located in a remote village with 350 inhabitants. The majority of the village people earn their livelihood in farming and forestry. In addition to the school there are a chapel and camping center owned by the church and a small grocery store with postal services in the village. The village is serviced by a municipal mobile library. The members of the village community have taken initiatives to improve their living conditions through local activities. The village has a village committee chaired by the head teacher of Ranta-Sointula School. The village committee also deals with matters pertaining to the case study school, as there is a threat to discontinue the school due to decreased municipal and governmental funding. The driving force behind the local activity is the concern over the possible discontinuation of the school with its consequences to the population structure and the interaction of the villagers. Now the inhabitants of village community use the school actively for hobbies and meetings. As a matter of fact, the school is the only rent-free venue in the village, refurbished by the help of the villagers.

The case study school building, built in 1910, is situated on a very beautiful lake site. It has been renovated, and teaching facilities, equipments and learning materials are up-to-date and suitable. There are two classrooms, a woodwork shop, a gymnasium, a kitchen, a teachers’ room, and a number of social facilities in the school. The school grounds include a sports field, a playhouse, and a sheltered area for games. There is another sports field and the beach by the lakeside. Also the immediate surroundings of the school offer many possibilities to teach Biology and outdoor sports. Almost all
students of Ranta-Sointula School are transported there by taxi, because of the large size of the school district, the daily journeys otherwise being too long.

There are two class teachers and a peripatetic English teacher in the school. Whenever necessary the school is also visited by a peripatetic special teacher. An ancillary worker who acts as a caretaker and a cleaner is involved in the daily work of the school. The school board consists of seven members and six substitutes, the head teacher being the secretary of the board. At present (spring 1995) there are 24 students, divided into two basic teaching groups. These combined grades have been formed of six students from grades 1-2, and fourteen students from grades 3-6. Preschool was attended by four children. The human resources in the school are very good from the point of view of the teachers' educational level. The head teacher of the school, Liisa, has graduated from a 4-year teacher training college. She has been working as a teacher for 15 years. Both the other teacher, Olli, and his substitute teacher, Tuomo, working during the school year 1994-1995, graduated from a modern teacher training program lasting approximately 5 years, leading to the degree of Master of Education. Since graduation, Olli has worked for five years and Tuomo for a year.

1.3.3 Changing financing systems

The teachers in small schools are responsible for managing the budget of the school. At the beginning of 1993 a new financing system having an impact on the financial resources of schools was launched in Finland. According to this system, the educational and cultural sectors receive financial support in the form of project-specific state grants, the amount being determined in terms of the national total cost per a student. At the municipal level, the state grant is seen as a special lesson hour quota index, i.e. the lesson hour quota per student. At the lower level of the comprehensive school the lesson hour quota is determined according to the number of teaching posts, which in turn is determined on the basis of the school's student numbers. (Pirhonen 1993, 17.) For example, at Suvila School, 28.5 hours of the weekly lesson hour quota can be used for each teaching post, amounting to the total of 57 hours per week in the whole school. The Municipal Board of Education is given a certain amount of money and it makes a general plan on its expenditure. The board allocates the funds to the schools, which then independently decide on their particular use. It is believed that the new
system is favorable to the preservation of small schools. (Cf. Pirhonen 1993, 13, 17, 20.) The current weak economic situation in the Finnish municipalities is, however, reflected in school budgets. The teachers are required to manage on a budget that is continually being cut.

According to the budget of Suvila School (1993), the school’s largest expense item consists of the wages and social security expenses of the teachers and other staff. These make up about 80 per cent of the annual expenditure. Approximately one fifth of the expenses is directed towards maintaining the premises as well as purchasing school materials and necessary services. Student transportation forms the greatest service cost, comprising about seven per cent of the school’s annual expenditure.

2 IMPLEMENTATION OF CURRICULUM CHANGE IN RURAL SCHOOLS

2.1 Management of change

Curriculum development in Finland has been successful especially in schools with a tendency of rich innovation. Management and teachers’ cooperation skills are seen as central factors contributing to a successful outcome. Additionally, teachers’ personal interest in their professional development has been a prerequisite for success. It is possible that successful curriculum work has also further encouraged school development. (Syrjäläinen 1994, 57; cf. also Atjonen 1993, 175-177; Bell & Sigsworth 1987, 156-166; Vulliamy 1996, 34-35; Webb 1996, 32.) According to Fullan (1993, 20), school reform is never-ending process of change characterized by complexity, dynamism and unpredictability. Various phases can be distinguished in educational change. (Cf. Fullan & Stiegelbauer 1991, 47-48.) For example, Suvila School has been following its own curriculum since 1992. The school-based curriculum was revised during spring 1994 to correspond to the new national curriculum. In Suvila School, the process of change from a traditional school to a school applying the principles of progressive pedagogics started at the end of the 1980s. The change proceeded in phases, by means of the experiences gained by the teachers in their practice and on discussions held about these experiences. During the first phase of the change, the teachers began working with topic units lasting for 1-2 weeks. At the same time, they
dismantled the system of teaching based on contact hours. During the second phase, the teachers increasingly stressed the need for activity-oriented learning in their teaching. The duration of the topic units was extended, in order to allow more time for the students' own project work and to allow them to go into greater depth. During the third phase, the teachers extended the school day, so that school started and ended at the same time every day.

We've been doing this change bit by bit, the whole time. We've not made any sudden changes. One of the most important changes was that I broke the 45-minute teaching system and built larger systems... First came the construction of project units. At first, the units were shorter, a week or two... Then I extended the periods to make activity-oriented learning possible, and so that we could deal with things more deeply... Students were given time for their own project work. The final product is the matter I've tried to deepen all the time. The activity-oriented learning revealed that the Finnish school practice does not make this system possible. That's when we gave up this school day that is tied to a strict number of hours. (Kalle, male teacher.)

The educational change for its part presented the teachers of Ranta-Sointula School with insurmountable problems concerning the curriculum development process. According to Syrjäläinen (1994, 50-56), Finnish teachers often experience curriculum development as problematic. In many schools the work could have been easier had the obstacles been recognised in advance. The teachers feel that seeing the general trends as well as the reflection of the school values and the nature of general education are quite difficult. Many teachers complain about the strenuousness of curriculum planning and the lack of time, because the work is done mainly after normal working hours. The main barrier in the curriculum development is the teachers' resistance to change. (Cf. also Atjonen 1993, 177-181; Jauhiainen 1995, 152-156.) For example, the teachers in Ranta-Sointula School were openly critical regarding the effective implementation of the new school-based curriculum. The head teacher felt that the construction of the school curriculum was especially hindered by the transfer of the other teacher, the prevailing lack of teacher cooperation, and the general curriculum development in the municipality. Moreover, she was no longer interested in in-service training. And also some parents expressed the wish that the school should concentrate more on the traditional teaching of basic skills. They felt that the teachers' responsibility is to teach the students the three R's. In addition, the economic situation in Finland was getting worse, and, in her opinion, it made many decisions in the school more difficult.

I have been slowed down by the fact that the previous male teacher left and we had a totally different view of the future... It ended right there. I was really desperate, what should I do now... We were getting on with the curriculum work very well. Then therewas some talk about the curricula varying a lot, because other schools were not doing
thing. There even were teachers who were against it. Then we decided to help the schools all together. (Liisa, female teacher.)

I personally have an idea of the new curriculum. I am cynical about it. I can barely do the job... It is only my opinion that there is no big change... My contribution to the curriculum in this school has been to copy the subject contents of Vesala school curriculum from the Teacher's Journal, leaving something out. Re-writing it. And there we have it. (Tuomo, male substitute teacher.)

2.2 Basic features of instructional organization

The work of a teacher in a small rural school is comprehensive by nature. The teacher is required to take responsibility for such administrative duties as the budget, the planning of activities and contacts with school administrators, attending meetings of the school board and the teaching staff. The teacher is required to be familiar with matters related to maintenance of the school building and to student welfare. He or she must also be capable of functioning as the head of the school. In addition to scheduled teaching, the teacher's work includes such matters as morning assemblies, supervision during breaks and school meals, and collaboration between the school and the home. (Kimonen & Nevalainen 1993, 94; cf. also Galton & Patrick 1990, 167; Gardener 1986, 117, 123; Kalaoja 1988b, 99-100; Vulliamy 1996, 26-34; Vulliamy & Webb 1995, 40.) For example, the teachers in Suvila School plan the activities of school together at the beginning of the semester and this plan of action is laid out in more detail in the form of weekly plans. The head teacher presents to the school board the work plans for the school year and the budget proposals that have been drafted cooperatively. Similarly, the students' parents have taken part in the planning of school work.

We have a planning day in the fall and in the spring. It has consisted of putting together the curriculum these last couple of years... The way we run the school, the way we organize free-time and work, that's our business. We are given a budget framework and the school head is responsible for its implementation. Before school starts in the fall, we work for at least a day. The budget gets done when it's the time for it. We make the orders for textbooks and materials together around this time in spring... Statutory decisions are made in a certain order. Decisions concerning practical activities are very informal. In other words, it's all very flexible and easy. (Kalle, male teacher.)

2.2.1 Towards a new organization of teaching and learning

One of the most powerful direct influences of the innovative visions of a school is that exerted on the organization of teaching and learning. This link can be clearly seen in
the description of Suvila School. (Cf. Hopkins 1994, 93.) A key policy for Suvila School is to emphasize the interaction between the school and the surrounding society, allowing students to learn from their own environment. The acquisition, processing and application of knowledge, as well as the production of new knowledge are also underlined. Cooperative work and respect for student diversity are major elements in the school’s approach. Suvila School curriculum (1994) first describes the underlying values of the school, its modus operandi and the most central objectives of the activity. The contents of the curriculum consist of four major parts:

1. The individual curriculum of a student constructed together with the teacher, student and his or her parents. It contains the emphasis areas to which special attention is paid with this student. The curriculum is revised annually.

2. Curriculum for the instrumental subjects, containing the order of proceeding in Mathematics, Finnish and English.

3. Subject matter orienting to the environment, containing the theme units of Environmental and Nature Studies, History and Religion.


Finally, the curriculum briefly discusses the teaching and evaluation methods used by the teachers.

The school year in Suvila School is divided into teaching periods of approximately six weeks each, according to various themes. The contents of modern subjects, such as Biology, Geography, Religion and History, are studied as theme units. At the end of the theme unit instrumental subjects are taught intensively during one week. Part of the instruction in Finnish and in practical and aesthetic subjects takes place in the form of workshops. Every seventh week, students can select a workshop. Video, cookery, music, art, or computer workshops are among those offered by the school. (Cf. Appendices 1 and 2.)

The school day begins with morning exercise in the school yard, followed by a joint morning assembly for all students in the largest classroom. The first work period of the day lasts approximately one and a half hours. The school’s lower grades (grades 1-2) work as a separate group. At the same time, students in the upper grades (grades 3-6)
have an individual study period of Mathematics, Finnish, or English. After the first work period all students participate in outdoor exercise and then have lunch. After lunch, the first two grades have a story-telling hour, during which they can also rest. At the same time, the students of the upper grades work on their projects or in different workshops. During the afternoon work period all students of the school continue with their projects or study practical or aesthetic subjects. They also have a small snack in the afternoon. (Cf. Appendix 3.)

Below we will be examining more closely the curriculum of Suvila School from the point of view of policy implementation. We will be focusing on the process of project work within the combined grades.

2.2.1.1 The project method in a combined grade

In project work, a teacher functions primarily as an instructor and work supervisor. Students' skills and knowledge are based on active work and participation in problem solving. (Cf. Gutek 1992, 118-119.) In the project work of Suvila School students study concentrating on certain topics which currently change every five weeks. Usually they work in groups made up of students of different ages. Both teachers supervise them during the work.

Even today I have felt like being "a supply wagon". I go around instructing where to find information, take these books. Here you have the tools for this. "The wagon" goes asking what they would need. That's the way I feel. In a way, I am responsible for the material, that it is available... The role of the student is to dig and to be curious, seek for information, collect it, choose and modify it so that there is a product of a new kind... To collect information and share it with others. In a way they learn themselves, and also teach someone else. Being a responsible worker is one of the roles. In that one particular group they are responsible for their own tasks. (Tiina, female teacher.)

In the following we will describe the different phases of the project work that was undertaken in Suvila School during our research period in 1994. We observed the final week of a three-week study period, when students were completing their final product arising from the topic of communication. The project work included three phases:

1. Motivation and orientation
2. Cooperation: planning, practising, producing and differentiation
3. Evaluation.
The purpose of the week's project was for students to prepare cooperatively a commercial and a bulletin. The teacher introduced the students to the topic on Monday and then student groups planned and carried out their work. The outcomes of the project work were evaluated on Friday at the end of the school week.

1. Motivation and orientation

Initially all students gathered in the largest classroom of the school. They were seated at their desks in groups of five, each group including students from different grade levels. The teacher announced to the students that the purpose of the final week of the communication topic was to plan and prepare, as a group, a video commercial for a product invented by the students themselves. Motivation for the project work was generated by looking at television commercials. After the viewing, the essential features of the commercials were discussed as a class. The teacher also explained the aims, schedule, and organization of the work and the necessary equipment.

This week we are going to compose the final product of the communication topic. It includes two tasks, which will be done in groups... First of all, the group creates a commercial. That commercial is recorded on video tape. The group must decide by itself, what the product is that you are going to advertise... You must invent some product and after that make an advertisement that is suitable for the product, so that you could get them sold, scads of them. To refresh your memory, let's see a few commercials... Tomorrow's lesson can be used for preparing the props. Today we'll prepare the commercial to the point where later on you don't have to do anything else, except maybe bring from home some clothes you need in the performance... On Wednesday we'd start shooting right away. Now, what we'll do is this: three groups start with this video, since we only have one video camera... The two remaining groups will start with the video on Wednesday... Those who start with the video, will think it over bit by bit. You make a plan about the plot, and the product must also be seen in this plan. (Kalle, male teacher.)

As a temporally differentiated final product, students had to draft a bulletin during the week, whose purpose was to inform future first-graders about affairs related to the school, or to offer information about the opportunities provided by the village to new inhabitants moving into the area. The text for the bulletin was to be planned as a group work task and typed out on a computer. The teacher emphasized the importance of successful task allocation in the working of the groups.

The bulletin is made by the publishing program...on the computer, but empty spaces are left for the pictures, and they are drawn by pencil. When you assign duties in the group, you should decide the division of work, so that those who write the texts and those who draw the pictures are different ones... On Friday everybody's work can be pointed out, when we look at the input of each person. (Kalle, male teacher.)
Two groups of students started to work on the commercial and three groups on the bulletin. We observed more closely the project work of two groups involved in producing a video commercial. In the following we will examine the planning, practice, and production phases of the project work in groups A and B, as they are labelled here.

2. Cooperation

Planning

After the orientation phase, students started the planning of the commercial in small groups. Observation group A consisted of a student from the sixth grade (girl), two students from the fourth grade (boy and girl), and two students from the first grade (boy and girl). The sixth-grader acted as chairperson and she also recorded the proposals made by group members. In addition to the chairperson, most of the ideas for the planning were presented by the fourth-grade girl in the group. The youngest students mainly listened and gave only few ideas. The chairperson directed the discussion and frequently went to show the outcome to the teacher. The teacher gave feedback and encouraged the students to continue with their work. As planning proceeded, the students discussed the clothes they would wear in the commercial. The teacher also gave suggestions regarding clothing.

Girl, 6th grade: Do you have any summery skirt with flowers, for example?
Girl, 1st grade: I don't, but I have flowery shorts.
Girl, 6th grade: Well, bring the pants... Where are we going to do it? We must solve these problems, so that we can start practising. It ought to be summer-like... Let's show it to the teacher and say that...

Observation group B included a student from the sixth grade (girl), two students from the third grade (boy and girl), and a student from the first grade (boy). In this group too the sixth-grader acted as leader. At first the students could not agree about the topic of the commercial. The third-graders of the group suggested different alternatives, which the chairperson did not, however, accept. The youngest member of the group sat rather quietly, went along with the others, and accepted ideas from the other group members. Finally, the chairperson of the group decided the topic of the commercial independently. The students then made a concise plan of the commercial on paper and showed their plan to the teacher.
Boy, 3rd grade: Nothing suits you, see... OK, everything suits us that you say. We must get this done somehow. You suggest now, suggest yourself, you haven't yet proposed anything.
Girl, 6th grade: You suggest.
Boy, 3rd grade: I have already suggested, but nothing has suited you.
Girl, 6th grade: I can't think... Now we'll make a toothpaste commercial. Say what you like, but we'll do it about toothpaste.

**Practising and producing**

After the planning phase, the students began the practising and producing of the commercial in their groups. The students in observation group A first practised without the video recorder. By this stage, the group members' roles had already become differentiated. On the second research day the students continued the dramatization. The older girls of the group also prepared props and sets needed for the commercial. The youngest members, however, sat fairly passively. When the necessary paraphernalia was ready, the group started to practise, using the video recorder. During the filming process, the teacher gave the students instructions about the use of the recorder and ensured that the events were on the video tape. After the filming, the students cleared up the space, dismantled the sets and returned their role costumes to their appropriate places.

Girl, 6th grade: I got those sodas in the picture alright. Matti, you don't have to turn the camera. Just film the kiosk. Now the camera is at the spot where you can start filming. This red starts the recording.
Teacher: Remember now to speak up. Leena, check the distance. Remember the breaks between the shootings.
Boy, 4th grade: Where does it shut off?
Girl, 6th grade: Same place as you turned it on.
Teacher: Leena, show a sign, when the filming can start.

The students in observation group B also worked on their commercial. The group leader guided the activity of her group in a dominant manner. The youngest members participated in the rehearsal and production of the commercial by taking on roles, but did not actively solve problems that emerged. The students were also dependent on the teacher's guidance.

Girl, 6th grade: You come a little closer at this point. You don't have to move. I can take a close-up with the camera... The first one comes as practice and we won't film until the second time. This cord is not long enough. Now this thing went off... Go and get the teacher.
Differentiation

The observation groups started the planning of the bulletin after the commercials were completed. The students in group A began by voting on the subject of the work. They then discussed the content, illustration, and method for realizing the bulletin. In the group they also allocated the necessary tasks. The project work was carried out on the last day of the week, the students drawing pictures and writing the text using the publishing program of the computer. When problems emerged, the students, however, relied on the teacher's assistance.

Girl, 6th grade: Which one do we take? The one for the first-graders or the story about the village? Who wants to do it for the first-graders, put up your hand? Who wants to do the village thing, put up your hands?
Girl, 6th grade: Let's do it about the village. The majority won.
Boy, 1st grade: I could draw some pictures. Are they drawn by computer or by hand?
Girl, 6th grade: They are drawn by hand... What are we going to write here? Let's go and ask the teacher how this is done. Wait a bit, I will go...

The students in group B eagerly discussed the content and illustration of the bulletin and all group members presented their opinions. The group leader still behaved in a dominant way, but the group had the clear common objective of succeeding in their task. They did not require the teacher's help this time.

Girl, 6th grade: Hey! We must write about the school. The village has a fine small school.
Boy, 3rd grade: Write like this. The village has a good school and 50 different families. Your children will surely be happy in a small school!
Girl, 6th grade: You mustn't fool about.
Boy, 1st grade: We should get this finished, so that we can go to the computer. I thought of the idea that there are fine views in the summer and lots of other things.

3. Evaluation

On the final day of the school week, the students came together to evaluate the outcomes of the project work. The teacher led the discussion. First the class viewed the commercials produced by the students. The students were instructed to observe how the commercials affected them. After the viewing, the teacher enquired from the students which product they could especially remember. He also asked about the difficulties that had arisen from the activity and drew conclusions regarding the significance of commercials and the methods they employed. Students reported that it had been difficult to estimate the duration of the commercial. Also acting had been
problematic. In addition, the special effects used in commercials and the truthfulness of commercials were briefly discussed.

The bulletins were also evaluated. They were posted on the blackboard and the problems that had emerged in their construction were recalled. Finally, the pictures were examined, and there was a brief discussion as to what attracts the individual’s attention, when he or she looks at such bulletins.

During the joint compilation of the project work, the teacher directed the discussion through questions although only the oldest students participated actively in the discussion. The teacher gave positive feedback to the students. Later on, however, he gave a more critical evaluation of the activity and outcomes of each student in written evaluations which were entered into their personal study-books. Also the student and his or her parents were able to evaluate the student’s working process and its results in the study-books.

Your movie analysis was carefully done. The summary of TV-monitoring is clear. Your commercial (Chap-soda) is varied and effective (although perhaps too long). It seems that there wasn’t enough time for preparing the bulletin. On the whole, your group was successful in its work. You acted as a responsible group leader. (Teacher assessment in the study-book of a 6th grade student, girl.)

2.2.1.2 Challenges and obstacles in project work

We have examined above teacher and student roles in the orientation, cooperation and evaluation phases of the project work in Suvila School. Furthermore, we have discussed problems that emerged in the activity. The essential tasks of the teacher in the orientation phase were student motivation and instruction giving. During the cooperation phase he actively gave advice and patiently guided the activity of the small groups. During the evaluation phase the teacher examined the products with the students. Later on he also wrote feedback notes on student outcomes and their work. (Cf., for example, Johnson, Johnson & Holubec 1990, 43; Olkinuora 1994, 68; Page 1990, 78-79.) The project work which was carried out in small groups gave students the opportunity for active interaction with one another and for jointly solving problems that arose from the tasks (cf., for example, Kyriacou 1992, 42). The most problematic element in the cooperation of the groups was the scarcity of negotiation and conciliation skills in conflict situations and the passivity of the youngest group
members, especially in the planning of the work. Problems also emerged with information processing, students selecting, grouping, classifying, and interpreting information at a basic level only (cf. Watts 1991, 41-42). They were often satisfied with fairly routine solutions. Simultaneous mastery of the social and cognitive goals set for small group work is certainly a difficult challenge for students in the active learning process of project work. However, projects offer them a unique opportunity to develop skills and abilities, such as problem-solving, social and communication skills, and therefore the learning potential of projects is significant. The other teacher, Tiina, described her own experiences concerning the weaknesses and strengths of project work as follows:

One of the weaknesses in project work I've been very worried about up till now is the chance that there's someone avoiding all work after all. Just this sense of responsibility... First I doubted whether the basic concepts get cleared up. Now I am wondering what the basic concepts are that should be learned. After all, how important are the contents, if they pick up the process and find the facts. This is one of my fears - maybe it's already gone... Then, another problem, and what I fear, is that some students have poor intellectual resources. We should of course keep on practising more. The problem is, as their work is so heterogeneous, the learning of note taking technique, so that it wouldn't consist of just copying... Can we make progress in the acquisition of knowledge. So that they'd be able to accumulate it in their own concept map, adding it to what’s been already learned. Or is it something detached, so that they cannot find the place where this and that fact belongs... Also I fear that this system has now been taken so far that when a co-worker comes from some other place, I feel the anxiety and pressure from the colleagues from other schools in a certain way... It is no easy task driving in this kind of a system... There’s no roof to knowledge, there’s no limit to the load of work. You can learn as much as you like. I think that this comes very close to the real-life quest for knowledge... All those things come up somehow: looking for information, finding it, selecting and producing it. The same processes come up that are met in ordinary everyday life, if we are doing some studying of our own. (Tiina, female teacher.)

2.2.2 Maintaining a traditional organization of teaching and learning

The significance of a curriculum as a guiding document for teaching has been proved often to be rather modest. The teaching has mostly been guided by instructional materials. (Atjonen 1993, 172; Kari 1988, 46; Korkeakoski 1990, 114-119; Syrjäläinen 1994, 15.) With the development of school-based curricula, the role of the curriculum as an instrument of planning the teaching has become more important in the 1990s (Jauhiainen 1995, 109; Kosunen 1994, 284). Nevertheless, in Ranta-Sointula School the textbooks still strongly directed the development of the school-based curriculum. Subject-centered aims and contents were thus based on the textbooks.
According to the curriculum of Ranta-Sointula School (1995), profound skills of the lower level school syllabus are emphasized in teaching. Consolidation of the students' social skills, a healthy way of life and love of nature are additional aims. The goal is a good and self-disciplined life. The curriculum is clearly subject-centered. The aims and contents of each subject are presented very briefly according to grades. Likewise, the curriculum lists superficially the teaching methods and the various operational forms of the school. The structure of subject contents is based on the national curriculum for comprehensive schools (1994).

The teaching follows the schedule originally based on the distribution of lesson hours according to the Framework Curriculum for the Comprehensive School (1985; 1994) (Peruskoulun opetussuunnitelman perusteet 1985; 1994). In the schedule all the subjects studied in each combined grade are clearly listed. The school day begins with a joint morning assembly for all students in the largest classroom. Subsequently the school's lower grades (grades 1-2) usually go to their own class. Then the school day generally proceeds in lessons of 45 minutes from one subject to the next, with the lessons being separated by recesses of 15 minutes. After the second lesson all students have lunch. (Cf. Appendices 4 and 5.)

Below we will be examining more closely the curriculum of Ranta-Sointula School, from the point of view of policy implementation, in the combined grades.

2.2.2.1 The traditional teaching process in a combined grade

In teaching in combined grades the teacher teaches two or more grades simultaneously. In Mathematics, Finnish, and English each student follows the syllabus set for his/her own grade level. In orientative subjects, such as History, Religion, and Environmental and Nature Studies, an alternating course system is utilised. In this system the subjects are taught in yearly alternating cycles. (Cf. Peruskoulun opetussuunnitelman perusteet 1985, 43.)

In both combined grades of Ranta-Sointula School, the teaching process primarily proceeds according to a model that is based on similar, traditional pedagogics (cf. also Laukkanen & Muhonen 1981, 268). In the teaching of the above grades, presentation by
the teacher and independent work by the students alternate. The teacher disseminates information, he/she supervises and controls. The most important audiovisual equipment is the blackboard and a piece of chalk. After the teacher-centered phase which is common to the whole group, the students work independently according to the guidelines presented by the teacher. They are used to peaceful and diligent work. No disturbances take place, even though the teacher might go out of the classroom. This kind of combined grade instruction based on the teacher’s control will possibly not allow real development in the learner’s responsibility and initiative. Liisa, the head teacher, described teaching in her combined 1st-2nd grade:

In Mathematics one grade practises the sums we have already dealt with, that is extra exercises and other practical applications, playing shopping or calculating with puzzle cards. During this time the other is instructed in a new task. They will do the sums on the blackboard and I will supervise them. When they have got it, they will continue practising on their own, and I will start instructing the first group. Or they will act as teachers and they will show the examples. In other subjects will check the homework first, if they had some. Then we prepare the next topic as group work, reading or looking it up in the book. (Liisa, female teacher.)

The other teacher of the school is teaching the students of grades 3-6. The students of grades 3 and 4 and the students of grades 5 and 6 respectively form two teaching groups. While the teacher is teaching grades 3-4 the students of grades 5-6 are working individually. Then the learning in the upper grades is teacher-directed. Meanwhile the lower grades are working independently according to the instructions given by the teacher. Tuomo, working as the substitute teacher, described his teaching:

The class is divided into two groups. One group (grades 3-4) is working individually and the other (grades 5-6) is being taught. In fact, we are carrying out the same principle, trying to divide the lesson into two. One half is being instructed and the other is studying silently. We made the division so that when grades 5-6 are instructed in History, grades 3-4 are doing Religion. It has been quite a lesson in Religion for 3-4, individual reading and an extensive, too extensive, actually, making of summaries. Reading of a chapter, drawing a picture of it and making a summary. Sometimes I have helped by underlining what to write where and, like here Jacob was walking in the desert and so on. (Tuomo, male substitute teacher.)

In the following we will describe the teaching practices that were undertaken in Ranta-Sointula School during our research period in 1995. The teaching was mostly teacher-directed and subject-centered, for example, in Biology and Environmental and Nature Studies the focus was on one particular topic. Next we will briefly describe an Environmental and Nature Study lesson with grades 1-2, the topic being electricity. The students were seated in the classroom at their own desks. The class included two students from the first grade and four students from the second grade. In addition, the
class was attended by four pre-school children. At the beginning the teacher distributed a leaflet about electricity to the students. Then she wrote the topic of the lesson on the blackboard, sat down and started to read while the students followed the text in their own leaflets.

Let's print the title here in capital letters. Now listen to me for a while. Let's look at the electricity book from the beginning... Who's that singing and making noise?.. Let me read a bit, so we'll get this book read sooner. (Liisa, female teacher.)

The teacher also asked about the students' experiences with electricity. She told them about the new street lights to be installed on the street leading to the school, and about a recycling bin for batteries to be set in the school yard. Only a part of the class participated in the discussion. Then the teacher announced that the students had to do one exercise in the book individually. Next to the electric appliances there were pictures of traffic lights that the student was to color in appropriately, depending on whether the student was allowed to use it or not.

Take a red, a yellow, and a green! Now work each on your own and color with the right color here. Hey, you weren't listening to me and now you don't know what to do. The order of colors is this... You can't use an electric mixer. So it must be red. (Liisa, female teacher.)

The teacher supervised the students on an individual basis. At the end of the lesson the exercise was checked and homework given.

2.2.2.2 Challenges and problems in teaching a combined grade

Many kinds of problems related to teaching arrangements, learning materials and the teacher's work have been detected in the teaching of combined grades. The simultaneous teaching of four groups of differing class levels in a lesson of 45 minutes will, according to the teachers, result in hastiness of teaching, superficiality and disjointedness, disintegration of the teacher's personality, a jigsaw puzzle of teaching and fragmentary instruction. In addition, teachers often find differentiation difficult in combined grade teaching. Especially the individual guidance of students with learning disabilities is problematic. Although a peripatetic special teacher visits the small schools when necessary, the supply of special services is often insufficient. (Kalaoja 1990a, 49, 99-100, 102, 108.) According to the class teachers in Ranta-Sointula School, the most problematic thing is the teaching of grades 3-6, where the combining and comprehensive integration of instrumental and modern subjects in particular is
considered very difficult. The teaching of combined grades presupposes that the teacher has very good organizational skills, ingenuity, flexibility, tolerance of insecurity and the skill to attend to the individual needs of every student. The small student groups in this case study school would, however, provide a good starting point for this.

It really bothered me when I looked into that broad-field teaching thing and tried it out in grades 3-6... How on earth can I work with it in 3-6 when it is so different there? They have Geography and Biology and all those sorts of things there... I have to say that 3-6 is a difficult combination. What happens is that Mathematics suffers particularly in 5-6. We should rescue Mathematics... (Liisa, female teacher.)

3 PERSPECTIVES ON TEACHER PROFESSIONAL DEVELOPMENT

In teacher education the teaching in combined grades of rural schools is only briefly dealt with during the four-week practice teaching. According to Nevalainen (1995, 292), over 60 per cent of the teachers (165 in all) in small schools felt that the current teacher education is better suited to the needs of big urban schools. More than half of them said that their education was not adequate for the tasks of a small school teacher. (Cf. also Kalaoja 1991, 22, 77.) Also the current in-service training for small rural schools is considered unsuitable in content and method (Kalaoja 1991, 102-106, 113). According to Kalaoja (1991, 102-106, 113), approximately half of the teachers in small schools (56 in all) required more in-service training in teaching arts and handicraft in combined grades and about a quarter in teaching in combined grades in general. Moreover, the teachers expressed a desire to know more about the special features and evaluation of different subjects and diverse approaches to the philosophy of teaching. According to Nevalainen (1995, 294), approximately half (52%) of the teachers (165 in all) in small schools felt that they had not received sufficient in-service training for their work. For example, the teachers in Ranta-Sointula School said that among other responsibilities they have to familiarise themselves with budgeting, since hardly no attention is devoted to this area in pre-service or in-service training.

The budget is drawn up on a trial and error basis because we have so little money. My school has the smallest budget of all two-teacher schools in this municipality... It is important that a teacher can get by with less, use all the creative talent and collect material. (Liisa, female teacher.)

The head teacher in Suvila School has participated in two-year consultant and work supervisor training program initiated by the university’s further education unit and has
attended a curriculum seminar organized by the National Board of Education. He regularly reads educational books and journals. Also other literature has inspired his work. In contrast, the materials provided by the National Board of Education have not furnished him with ideas. The teacher has also accessed information through discussion with other teachers, students’ parents and board members. He has also been an agent of change primarily through reporting to the teachers of the municipality and the whole province about his own experiences and observations in implementing a school-based curriculum.

Curriculum change involves a remodeling of teaching materials (Fullan & Stiegelbauer 1991, 37). Therefore, for example, new communication technologies are being developed to arrange modern educational opportunities for students in small rural schools (Kronlund, Kynäslahti & Meisalo 1995, 44-45). This in turn will challenge the professional development of the teacher. The peripatetic English teacher of Ranta-Sointula School has participated in the development of distance education of small schools in the municipality, the so-called telematic teaching experiment. Since autumn 1995 English has been taught as distance education by a language teacher of Jyväskylä Teacher Training School once a week with the help of a computer network. The aim of the experiment is to teach other languages in addition to English later on. However, Ranta-Sointula School is not involved in this experiment.

4 RELATIONSHIPS WITH LOCAL COMMUNITIES

The small school teacher has effective opportunities for implementing the curriculum outside the school. Outdoor education presupposes many kinds of skills and knowledge on the part of the teacher. He or she has to be able to answer such questions as: why, where, what and how can we teach outside the school? The teacher should realize which natural, industrial or cultural aspects of the community he/she could exploit in his/her teaching and be familiar too with the various teaching methods of outdoor education such as study visits, study trips and school camps. (Cf. Hammerman, Hammerman & Hammerman 1985, 23, 82; Kimonen 1989, 250.)
The teachers in Suvila and Ranta-Sointula Schools are acquainted with the opportunities offered by the environment around the school. In their teaching they use different outdoor education methods and targets. The activities are also closely connected to the educational principles of the school. The teaching process in outdoor education is generally initiated by work in the classroom. When they arrive at their destination students usually write notes, interview specialists and collect samples. Presentations and assessments generally take place in the classroom. When studying outside the school, the students, however, mainly observe the environment rather than participate in the activities of the village community, for example, by helping the old or publishing the village newspaper (cf., for example, Sauders 1979, 218-224).

They ask questions and look around. When we visited the cowshed, it was about the time they were finishing the milking and cows were feeding and being led outside...The students gave food to the cows. They had to be brave enough to walk along the feeding aisle. (Kalle, male teacher.)

The ideal process of outdoor education proceeds according to the child’s developmental level in small stages from the familiar to the unfamiliar (cf. Hammerman et al. 1985, 19-21, 82; Kimonen 1989, 250). The students in the case study schools have made short trips into the school grounds, to their own village and their own municipality. Only rarely have the trips and school camps taken place outside the local province. (Cf. also Kalaoja 1990a, 68-69.) The students mainly study nature, agriculture, and local production plants. In addition, they usually work in groups that have been formed from students of different ages and in this case the responsibilities and study tasks related to study are differentiated according to the developmental level of the student.

We go out to visit production plants and the log factory area, and a couple of small industrial halls. There is a great variety of agriculture... All kinds of ecotypes can be found here. We have a nature trail over there, behind the factory... We walk in nature rather a lot. (Kalle, male teacher.)

We went to see the neighboring village and what happens there... We made business visits. There was a sheep farm that we visited. They showed us how to get wool from a sheep and yarn from the wool and then sweaters. From there we went to a box factory where they made all sorts of boxes. The man in the box factory also raised dogs. He told us about raising dogs. In the neighborhood there was also a dried flower producer and the fields were full of flowers. Then we went to the store room and we saw how they were left to dry upside down. We went to a fish smokery where we could see a fishing trawler. After that we went to a summer cottage to have a sauna. (Liisa, female teacher.)

The aim of the new curriculum is to change the school into a learning center which is in close contact with interest groups from the local community. The closest of these groups is the parents. According to Kalaoja (1988b, 105-106), the teachers of small
schools (55 in all) most typically contact the homes by telephone, visits, or then at the school festivals, the village festivals, occasional encounters in the village, and parents’ meetings. Almost half of the rural teachers (47 per cent) visited the homes. Approximately a sixth of the teachers (16 per cent) said that they met parents at village community hobby clubs or societies. The head teachers were more active making contact than the other teachers. For example, the observations on Ranta-Sointula School cooperation with the students’ homes follow the trends in the previous studies on small schools. The various modes of cooperation between the case study school and the homes include weekly newsletters, discussions with parents, visits to students’ homes, and parents’ meetings. Teachers meet the parents also at school as meetings, courses, festivals, theme units, hobby groups, socials, and occasional encounters.

We haven’t had many parents’ meetings. Everyone in the school board is a parent of a kid in our school, and so are the substitutes. They all know about these things. They get the weekly newsletter delivered. We ring each other up from time to time. If there are some visitors at the school the parents are welcome too, to meet them... We spend a lot of time together. Well, I am the chairperson of the village committee. So once a month we meet with the same parents there. Some of them I meet almost daily. (Liisa, female teacher.)

There has been a long tradition of collaboration between people living in the Finnish countryside. Many official and administrative districts have been formed on the basis of villages, such as school- and postal districts and districts for municipal planning and voting. Such cooperation has often centered on rural schools. (Hautamäki 1989, 7-8.) The school has a stimulating effect on the village community socially, culturally and intellectually. Activities arranged in schools unite the village and its inhabitants. The activeness of the village is reflected in the activeness of the school. (Kalaoja 1988a, 149; Nevalainen 1995, 266-270.) According to Nevalainen (1995, 224-226, 267), about 80 per cent (N=165) of small school teachers in Finland considered the school as the center of cultural, spare-time and community activities in the village. The school also created the identity of the village and a cooperative spirit. The activeness of the teacher was a central factor in the development of the school into the center of the village community. For example, Ranta-Sointula School has become an important meeting place for the village community. The facilities and equipment of the school are used efficiently also in the evenings and during weekends. The diverse use of the school building for the villagers’ leisure-time activities has taken place without problems according to the teachers. Since the school has mainly been repaired with the help of voluntary work, responsibility is taken for its maintenance as well. The many activities of the parents
and other inhabitants in the village presuppose that the teacher has an ability to cooperate, is adaptable and open.

Yes, the school keeps this kind of a small village together. If it disappeared a lot would also change. Then there would have to be some other place to hold these village meetings and other things. Many other things would die along with the school. For example the hobbies that have been arranged in the school. (Student’s mother.)

I haven’t heard of anyone complaining. Even the cleaning lady can arrange to do her work at a convenient time, when she knows the program. And we could still fit in some stimulating activities for the old after school. After the taxi has taken the students home, the old could come in to have one of their meetings. The village people have fixed up the school building precisely so that it can be used. (Liisa, female teacher.)

The school is working hard for the benefit of villagers. They can come freely and they can use it for different activities. The village paper is published here... They think that the school is really important for them. They will do everything to keep it going. (English teacher, male.)

The survival of a small rural school also during economically unstable times presupposes that the teachers have the ability to see their own work as a social task. Beyond working together in schools, teachers are sometimes called upon to contribute to their communities. (Cf. Forsythe 1983, 104-106; Forsythe & Carter 1983, 160-162; Kalaoja 1988b, 99-106; Stern 1994, 39.) Finnish teachers may have an important role in community integration and activation especially in cooperative village communities displaying their own initiative in abundant interaction among the inhabitants (Nevalainen 1995, 285). For example, the head teacher of Ranta-Sointula School has several positions of trust through which she has aimed at developing her own village and school. The head belongs to committees with the goal of decreasing the isolation of the village and of increasing the number of inhabitants. Activities have, for instance, focused on improving difficult road connections and promoting the sale of plots of land for building, thus making it easier for families with children to move to the village. Simultaneously the teacher has supported the survival of the village school and her own post. In these tasks she has had many social roles, such as those of leisure-time organizer, developer of the village community and social trend-setter. The members of the village community have supported the participation of the head teacher in the development of the community.

It seems that I am getting more and more of these municipal and provincial tasks. At the village level I am in the farmers’ association and the village association and I also write for the village newspaper... I want this village to get bigger and better. I am motivated, this is my village. Now that I am here in this village I am serving a greater cause. (Liisa, female teacher.)
CONCLUSIONS

Above we have examined the process of curriculum change in a small rural school in Finland. We have analyzed the effect of the changes on curriculum policies and teaching practices.

Curricula are social and cultural constructions, comprising a practice component - the written curriculum - and an interactive component realised in classrooms (Hamilton 1995, 218). The curriculum is a dynamic process continually reacting to the physical, material, human and economic changes in the environment. It is the bases for the planning, implementation and evaluation of school work. (Peruskoulun opetussuunnitelman perusteet 1994, 9, 15.) The main principles of the curriculum reform currently being implemented in Finland support a school culture which lays stress on the autonomous control of learning and encourages flexibility and interactiveness in the school.

Implementation of a new curriculum may necessitate changes in learning materials, teaching approaches and belief systems of teachers. Changes in learning materials are the most obvious because they are concrete and real. Changes in teaching practices involve the development of new skills, behaviors, coordinated activities amongst other things. Curricula are based on certain assumptions, philosophies or beliefs about education. Changes in beliefs or understanding lie at the very heart of what education and learning are for a particular group of students in a particular curricular area in a particular community and society. These beliefs are often critical to effective implementation, because they shape the teachers’ thinking and subsequent actions. They are also extremely difficult to change. (Fullan 1987, 214; 1988, 196-197; Fullan & Stiegelbauer 1991, 37.)

School reform, according to Fullan (1993, 20, 24, 37, 67), is a never-ending process of change characterized by complexity, dynamism and conflicts. Various phases can be distinguished in educational change. For example, in Suvila School, changes in the curriculum policies and practices has proceeded in phases. The process of change has continued inductively through the comparison of individual experiences which leads
to a decision of action. During the initiation phase of the change process, the teachers observed the needs for changes in the school curriculum, in the practices of action, and in the setting of action. They designed changes and tried out different realizations. Experiences gained during the implementation phase were analyzed with the school board, and the most essential features of the changes were described in the parents' meetings. The models of action were compared, and their success was evaluated. During the continuation phase the observations and experiences gained over approximately five years, concerning the strengths and weaknesses of the process of work and learning, were thoroughly discussed in teachers' joint meetings. Finally, the new curriculum of the school was constructed. This innovation process was, of course, facilitated by the decisions of the central educational administration. (Cf. Fullan & Stiegelbauer 1991, 47-48; 1992, 96-97.)

The implementation of changes in the school system involves the teacher in an active learning process. According to Fullan (1992, 87-92, 98-113), there are close links between a teacher's life-long learning, the implementation of school reforms, and students' progress (cf. also Patrick & Hargreaves 1990, 107-108). If a teacher's work practices are to change, then the teacher's learning process will involve changes in his beliefs and conceptions. A teacher's readiness for cooperation and experimentation also helps to promote development (cf. Vulliamy 1996, 34; Webb 1996, 32). Often, a change in the school system presupposes external pressure, assistance and support. Transformation of the traditional school context requires the teacher to critically reflect on his/her own principles and practices of action and to transform them, in other words, to create a new school context. From the teacher's point of view, innovations in working and the management of change involve a comprehensive learning process, where the prevailing school culture is initially internalized and, then through externalization, transformed. In this perspective, the learning process of Ranta-Sointula School teachers in the traditional school culture was essentially reproductive. Thus the teachers reacted to changes in the internal and external setting of action mainly by identifying defects and correcting them. In this way the teachers preserved the models of thinking and action sustained by the school, which were based on a behavioristic conception of learning which emphasized the external control of learning. Accordingly, such single-loop learning aims at the preservation of the prevailing school practices and routines. (Cf. Argyris & Schön 1976, 19; Kauppi 1993, 79.) By contrast, the modern school culture in
Suvila School, based on progressive pedagogics which follow the constructivist conception of learning, requires transformative learning. In order to change the context of the school, the teachers need new models of thinking and action. As a result, a change in the basis of action becomes a double-loop learning process for them. (Cf. Argyris & Schön 1976, 19; Kauppi 1993, 87.)

The challenges and problems of the school activity forms the basis for the teacher’s learning motivation and encourage him/her to develop his/her own work. Optimally, in the curriculum change process, the teacher acts as an agent of change affecting school culture by describing his/her experiences and observations as an implementor of a school-based curriculum to other teachers and interest groups. The teacher’s active learning consists of the independent solving of problems arising from the everyday life of the school, and of the active accessing of knowledge and skills required in the construction of new models of thinking and action.

REFERENCES


Kronlund, T., Kynäslahti, H. & Meisalo, V. 1995. Modern Distance Education Technology and the Problem of Small Rural Schools in Finland. Life and Education in Finland (4), 43-49.


## APPENDIX 1. Theme units organization at Suvila School

<table>
<thead>
<tr>
<th>First year</th>
<th>Second year</th>
<th>Third year</th>
</tr>
</thead>
</table>
| 1. The forest | 1. The farm  
- forest biology, cycle of organisms in nature, forest use, forest industry, combustion  
2. History  
- courses after the theme list  
3. Geography  
- courses after the theme list  
4. Me  
- human biology, human developmental history, nutrition  
5. The Bible  
- central content, connections with the present day  
6. Trade  
- consumer information, commerce yesterday and today, money arithmetic, occupations in trade, entrepreneurship | 1. The road  
- traffic, importance of road in society, the roadside as an ecosystem, road construction yesterday and today  
2. Matter and energy  
- states of matter, energy, electricity and electrical devices, magnetism  
3. Jesus  
- life and central teachings, connections with the present day  
4. The earth and space  
- the earth in space, celestial bodies, constellations, origins  
5. Geography  
6. History |
| 2. History | 2. Hospital  
- health education, factors affecting health, infectious diseases, accidents and first aid, occupations in hospital, chronic illnesses  
3. Geography  
4. History  
5. Geography  
6. History | 1. The road  
- traffic, importance of road in society, the roadside as an ecosystem, road construction yesterday and today  
2. Matter and energy  
- states of matter, energy, electricity and electrical devices, magnetism  
3. Jesus  
- life and central teachings, connections with the present day  
4. The earth and space  
- the earth in space, celestial bodies, constellations, origins  
5. Geography  
6. History |
APPENDIX 2. Periods, theme units and workshops in Suvila School

<table>
<thead>
<tr>
<th>Period</th>
<th>Theme unit</th>
<th>Workshop</th>
</tr>
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<tbody>
<tr>
<td>1. period</td>
<td>22.8.94-30.9.94</td>
<td>House and garden</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finnish: writing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Music/Art</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cookery</td>
</tr>
<tr>
<td>2. period</td>
<td>3.10.94-11.11.94</td>
<td>Geography</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mathematics: measurement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Travelling in English</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Handicraft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Art</td>
</tr>
<tr>
<td>3. period</td>
<td>14.11.94-22.12.94</td>
<td>The life of Jesus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finnish: drama</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Music/Art</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cookery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Glass painting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Christmas decorations</td>
</tr>
<tr>
<td>4. period</td>
<td>9.1.95-17.2.95</td>
<td>Earth and space</td>
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<td></td>
<td></td>
<td>Mathematics: geometry</td>
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<tr>
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<td></td>
<td>Winter sport</td>
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<td></td>
<td></td>
<td>Handicraft</td>
</tr>
<tr>
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<td></td>
<td>Computer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Art</td>
</tr>
<tr>
<td>5. period</td>
<td>6.3.95-12.4.95</td>
<td>History (grades 4-6)</td>
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<tr>
<td></td>
<td></td>
<td>The biology of the seasons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finnish: writing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cookery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drama</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Easter decorations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Art</td>
</tr>
<tr>
<td>6. period</td>
<td>18.4.95-26.5.95</td>
<td>Matter and energy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finnish: communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Music/Art</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
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<td>Cookery</td>
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APPENDIX 3. Schedule for grades 1-6 in Suvila School

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<tr>
<th>Time</th>
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<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>8.50-</td>
<td>Finnish/ Maths</td>
<td>Maths/ Finnish</td>
<td>Topic work</td>
<td>Maths/ English/ Finnish</td>
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</tr>
<tr>
<td>-10.20</td>
<td>Music/ Maths</td>
<td>Finnish/ Maths</td>
<td>Topic work</td>
<td>Finnish/ Maths and Finnish/ English</td>
<td>Finnish/ Maths/ English</td>
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<tr>
<td></td>
<td>Outdoor exercise</td>
<td>Outdoor exercise</td>
<td>Outdoor exercise</td>
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<td>Outdoor exercise</td>
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<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
</tr>
<tr>
<td>11.30-</td>
<td>Story-telling/ Finnish</td>
<td>Story-telling/ Handicraft</td>
<td>Story-telling/ Topic work</td>
<td>Workshop</td>
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<td>Topic work/ Finnish/ English</td>
<td>Club/ Handicraft</td>
<td>Topic work</td>
<td>Workshop</td>
<td>Art</td>
</tr>
<tr>
<td>-14.15</td>
<td>Topic work</td>
<td>Club/ Music</td>
<td>Handicraft/ Physical Education</td>
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<td>Art</td>
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# APPENDIX 4. Schedule for grades 1-2 in Ranta-Sointula School

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<td>Finnish/</td>
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<td>Religion</td>
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<tr>
<td>9.30</td>
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<td>Finnish/</td>
<td>Finnish/</td>
<td>Finnish/</td>
<td>Maths/</td>
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<td>Finnish</td>
<td>Finnish</td>
<td>Maths</td>
</tr>
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<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
</tr>
<tr>
<td>11.00</td>
<td>Handicraft/</td>
<td>Physical</td>
<td>Environmental</td>
<td>Maths/</td>
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<tr>
<td>-11.45</td>
<td>Handicraft</td>
<td>Education/</td>
<td>and Nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Handicraft</td>
<td>Physical</td>
<td>Studies</td>
<td></td>
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<tr>
<td></td>
<td>Handicraft</td>
<td>Education</td>
<td>Environmental</td>
<td></td>
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<tr>
<td></td>
<td>Handicraft</td>
<td>Physical</td>
<td>and Nature</td>
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<td></td>
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<td></td>
<td>Handicraft</td>
<td>Education</td>
<td>Studies</td>
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</tr>
<tr>
<td>12.00</td>
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<td>Music or</td>
<td>Environmental</td>
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<td></td>
</tr>
<tr>
<td>-12.45</td>
<td>Handicraft</td>
<td>Physical</td>
<td>and Nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Handicraft</td>
<td>Education/</td>
<td>Studies</td>
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<tr>
<td></td>
<td>Handicraft</td>
<td>Music or</td>
<td>Environmental</td>
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<tr>
<td></td>
<td>Handicraft</td>
<td>Physical</td>
<td>and Nature</td>
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<td></td>
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<tr>
<td></td>
<td>Handicraft</td>
<td>Education</td>
<td>Studies</td>
<td></td>
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</tr>
<tr>
<td>13.00</td>
<td>Finnish/</td>
<td>Music/</td>
<td>Art</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-13.45</td>
<td>Finnish</td>
<td>Music</td>
<td>Art</td>
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Grade 1* Grade 2 **
APPENDIX 5. Schedule for grades 3-6 in Ranta-Sointula School

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<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30</td>
<td>Religion*</td>
<td>Finnish</td>
<td>Finnish</td>
<td>Maths</td>
<td>Religion/</td>
</tr>
<tr>
<td>-9.15</td>
<td>Religion**</td>
<td>Finnish</td>
<td>History</td>
<td>Maths</td>
<td>History</td>
</tr>
<tr>
<td>9.30</td>
<td>Maths</td>
<td>Maths</td>
<td>Finnish</td>
<td>Finnish</td>
<td>Finnish</td>
</tr>
<tr>
<td>-10.15</td>
<td>Maths</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
</tr>
<tr>
<td>11.00</td>
<td>Civics</td>
<td>Physical</td>
<td>Biology or</td>
<td>Biology or</td>
<td>Physical</td>
</tr>
<tr>
<td>-11.45</td>
<td>Civics</td>
<td>Education</td>
<td>Geography/</td>
<td>Geography/</td>
<td>Education/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical</td>
<td>Biology or</td>
<td>Geography/</td>
<td>Physical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Education</td>
<td>Geography</td>
<td>Geography</td>
<td>Education</td>
</tr>
<tr>
<td>12.00</td>
<td>Finnish</td>
<td>Handicraft</td>
<td>Maths</td>
<td>Art</td>
<td>Music/</td>
</tr>
<tr>
<td>-12.45</td>
<td>English</td>
<td>Handicraft</td>
<td>English</td>
<td>Art</td>
<td>Music</td>
</tr>
<tr>
<td>13.00</td>
<td>English</td>
<td>Handicraft</td>
<td>English</td>
<td>Art or Music</td>
<td>Art or Music</td>
</tr>
<tr>
<td>-13.45</td>
<td>Finnish</td>
<td>Handicraft</td>
<td>Maths</td>
<td>Art or Music</td>
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Grades 3-4* Grades 5-6 **
I. Document Identification:

Title:
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Author:
Eija Kimonen and Raimo Nevalainen

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