Since half of Finland is sparsely populated, the Finland National Board of Education has initiated a preschool project for sparsely populated areas. Project goals are defined as the acquisition through research, experiment, and planning of information relative to sparsely populated areas and special problems of distance, small population base, industry, and special sociocultural features. This three stage project involves: (1) an interview inquiry (parent expectations and child needs) and a general design based on inquiry results (1972); (2) preparation of experimental teaching plans (spring 1973 for fall 1973 and fall 1973 for 1974) and inquiry into the environmental stimulation of the preschool aged in sparsely populated areas (1973); (3) initiation of the experiment using different forms of solution in several communes in North Karelia (1973-74) and multiple problem study in the latter half of 1973. Both internal and external evaluations are being employed. During stages of implementation (1974-75), the intention is to map obstacles and developments and plan accordingly; adjust teacher training; examine suitability of teaching materials and the institutes of daycare as stimulus environments; and conduct research relative to rural problems. Information derived from the project study will be used to aid in development of a consistent curriculum for rural preschool children. (JC)
THE DEVELOPMENT OF ORGANISATION MODELS FOR EARLY EDUCATION AND EARLY GRADES IN SPARSELY POPULATED AREAS

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FOREWORD

This document was prepared by the Finnish team attending the IMTEC (International Management Training for Educational Change) training course on The Management of Change: Elementary Education, held at the Ullensvang Hotel in Lofthus, Norway, 5th - 16th May, 1974. The authors have not actually participated in the project concerned. As the authors have not been working in the project, the information used in this paper originate, on the other hand, in the documents, plans, discourses, interim reports and financial decisions concerning the project and, on the other hand, in telephone conversations held with persons attached to the project. The opinions expressed in this paper are those of the authors and, as such, do not necessarily reflect the position of the national authorities concerned.
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**APPENDIX**
THE DEVELOPMENT OF ORGANISATION MODELS FOR EARLY EDUCATION AND EARLY GRADES IN SPARSELY POPULATED AREAS

1. BACKGROUND

1.1. The goals and significance of the innovation

Both the preschool work group set up by the Ministry of Education on 10.10.1969 and the preschool committee which was in session 4.6.1970 - 30.5.1972 and was set up by the Council of State confirmed that for realization of preschool in sparsely populated areas, information and experience was needed concerning the requirements/imposed by these areas which differ from densely populated regions in their circumstances, long distances, small population base, industry and special cultural and social features. The organs deliberating the development of children's daycare have also directed attention to the special problems of sparsely populated regions. The national school and social welfare authorities (Ministry of Education, National Board of Education, Social Welfare Administration) together with institutes conducting educational research (among others Joensuu University, Jyväskylä University, Oulu University) have considered it to be important to analyse how, in spite of the special conditions of sparsely populated areas, the inclusion of the 6 year olds in compulsory education

1) By early education is meant the education of those below school age (at present in Finland the 0-6 year olds). By early grades is meant teaching of the first grades, mainly I-II (III), of the lower level of comprehensive school. In this presentation the term preschool (class) is also used, meaning here the education of 6 year olds, organised principally by the State and by the Communes.

2) Children begin the present 9 year comprehensive education in Finland during the year of their 7th birthday. Compulsory education thus covers the years of age 7 - 16.
providing stimulating activity for those less than 6 years can be organised in those areas, so that the solutions chosen will promote general social, educational, regional and cultural equality and, linked to these things, the development of the children's readiness for learning and the advance prevention of learning difficulties. The culture of sparsely populated districts and the environment in which the child grows up in are likely to be in some respects more lacking in stimulation than those of the child in densely populated regions, on the other hand, in some respects also more richly stimulating and this may at any rate partly be the reason why the children in these areas are in a worse situation than other children, unless appropriate solutions can be found for assisting them. Thus innovation is of particular importance from the point of view of the countryside. A good half of Finland is composed of sparsely populated regions (see Appendix 2). At the present time the 9 year comprehensive school is being put into practice in our country and the transfer to this has been commenced in the reform plans is the lowering of the entrance age to comprehensive school to 6 years. In 1973 a law was enacted concerning children’s daycare, giving a framework for a quantitative and qualitative development of children’s daycare institutes. Daycare in sparsely populated districts requires its own solutions, concerning which the project under consideration may give some hints.

1.2. Project design

The preschool project in sparsely populated areas 1972-1975 was begun in the autumn of 1972. The diagram in appendix 1 (p. 16) gives the date of the preliminary general design of the project as of November 9, 1972.

The goals of the project were defined as the acquisition through research, experiment and planning of the information required for solving the problems mentioned in section a).

The project's preliminary planning was started already during the activities of the preschool committee, at the beginning of 1972. The project was started properly in the autumn of
1972. On the basis of the plans, the following stages in the project, also presented in appendix 1, can be distinguished:

Stage I: (a) Interview inquiry, by means of which were mapped out the activities and home conditions of the children of preschool age in sparsely populated areas, the children’s parents’ expectations concerning preschool and its various forms of realization, their opinions of together with the children’s need for daycare. Based on this investigation, a design was drawn up for experimental forms of solution to be tried out.

(b) Preparation of the project’s general design based on the results of the interview inquiry, previous planning and experiments, research and survey work. This stage was completed at the end of 1972.

Stage II: (a) Preparation of experimental teaching plans for the autumn experiment (in the spring of 1973), based on designs obtained from other sources, adapting these to different forms of solution and taking into account the local circumstances. Preparation in the autumn of 1973 of the teaching plans for 1974.

(b) Inquiry into the environmental stimulation of preschool aged children in sparsely populated areas, by means of which attempts were made to clarify the special features of environmental stimulation in sparsely populated regions, features which should be taken into account when drawing up the curriculum. Year 1973.

Stage III: (a) The preschool experiment, using different forms of solution, in several communes in North Karelia in the autumn of 1973 (until end of 1974).

(b) Multiple-problem study in the latter half of 1973.

During the stages of realization taking place in the coming years 1974 and 1975, the intention is to
- continue the preschool experiment
- map developmental obstacles and to plan special preschool on the basis of the obtained results
- adjust teacher training
1.3. Initiatives and decisions concerning realisation of the project

The decision with regard to realization of the first stage of the project was made by the National Board of Education. Initiative originated in the research section of the preschool committee, in which the National Board of Education, the Social Welfare Administration and the Research Institute of Karjala were represented. The general design of the project was prepared in stage I in the Research Institute of Karjala. This institute also prepared an experimental curriculum, made proposals concerning the environmental stimulation research and encouraged communes to apply for permission for the experiment to be conducted and assisted in drawing up the application. Financing decisions were made in the Ministry of Education and the Social Welfare Administration, based on the proposals.

According to the decision of the Ministry of Education on 1.3.1973, the preschool experiment proper, subordinate to the educational authorities, would only be expanded to those communes which have put the comprehensive school into practice. On the suggestion of the National Board of Education and assisted by the project staff working in the Research Institute of Karjala, Juuka commune's school board drew up a new application to participate in the preschool experiment in accordance with the decision made by the communal authorities and this was delivered to the Ministry of Education through the provincial government and the National Board of Education, the Ministry granted Juuka permission.
in August 1973 to participate in the preschool experiment. The experiment was put into operation by the Research Institute of Karjala and Juuka commune on the first of October 1973 (see Appendix 2 for location of the Research Institute and the commune). The initiation of the experiment naturally assumed that the children and their guardians as well as the teaching staff had agreed to take part in it. In the school year 1973-74 all the children living in the sparsely populated districts of Juuka commune participated (a total of 88 children).

1.4. Management of the project and the structure of decisionmaking

The Research Institute of Karjala is carrying out the project independently, on the basis of the designs draw up in the Institute and approved by the school and social welfare authorities. Most of the finance decisions are made per calendar year in the Ministry of Education and, with regard to certain parts, in the Social Welfare Administration, both of which may, in some cases, have the matter preliminarily dealt with by the Ministry of Finance. The National Board of Education and the Social Welfare Administration grant resources for different parts of the project. They also are responsible for the overall supervision and evaluation of the project. The National Board of Education gives yearly instructions concerning the experiment subordinate to the school authorities and these are also used with adaptation in the activities of the experiment subordinate to the social welfare authorities. The provincial government sanctions the commune's plan of activities for the preschool class, which is prepared yearly according to the instructions given by the National Board of Education for the financial and administrative supervision of the experiment. In practice, the Research Institute realizes the project, in particular with regard to the research, quite autonomously. Acting as scientific director of the project is the Research Institute's director.
On a local level the commune's school board is responsible for the realization of the teaching experiment. The National Board of Education indicates in its instructions that it considers it to be desirable if a group of experts is set up in the commune to assist the experiment. As preschoolers are not included in compulsory education, the experiment presupposes voluntary participation of the children and their parents. This is an important condition also considering that the project requires the parent's appreciable contribution in certain respects. Successful management of the project naturally requires that preschool teachers establish good collaboration with the leadership and other teachers. The teachers make the decisions concerning instruction on the basis of curricula and other instructions. Instruction by correspondence is taken care of by the Research Institute of Karjala.

1.5. Financing of the project and other assistance

The project is financed by the Ministry of Education (National Board of Education) together with the Social Welfare Administration. The commune bears a part of the costs. The Social Welfare Administration has given funds for the inquiry into environmental stimulation and for the evaluation of correspondence teaching and has financed the summer school. The research concerning families with multiple problems occurring at a later stage is also financed by this department and the part of the project directed at the under 6 year olds, to be realized later, will be entirely subordinate to the Social Welfare Administration.

1.6. Evaluation of the project and the research associated with it

The research attached to the project has already been briefly described in section I b). From the interview inquiry in stage I it became evident that the families in sparsely populated regions who were the subjects of the
study showed evidence of numerous different kinds of problems - physical and mental illnesses, work incapacity and poverty appeared within the same families. Because of this a multiple-problem family study is included in the project. There are also plans to give a diagnosis of the 5-6 year olds' arithmetical and writing difficulties and following this, an experiment to correct these problems.

Attached to the project are both internal and external evaluations. External evaluation is conducted principally by the provincial governments' school and social welfare authorities, the Ministry of Education, the National Board of Education and the Social Welfare Administration supervising and financing the project. Formative evaluation is to take place for the duration of the project, concentrated mainly on the annually occurring assessment and approval of the plans; to some extent evaluation is performed through the school year. The main external evaluation, however, is carried out as a summative, concluding evaluation which endeavours to make use of the results of the project and more extensively apply its results. For the time being one cannot say that, the evaluation of the innovation projects is being carried out very systematically in Finland.

Within the project itself attempts are made to conduct both formative and summative evaluation. Formative evaluation, shaping the project as it proceeds, is (to use Stake's 1974 classification) both formal, strictly defined in advance, 'preordinate' and informal, adaptable, 'responsive'. Most evaluation is of the latter type. In this way attempts are made to compare the various forms of experiment by closely following the experiment, observing, recording through interview and questionnaire the experiences, observations and concepts of the children, their parents and teachers. The children's parents also have the possibility to estimate the usefulness of the experiment and to take part in the decision-making concerning their own and their children's participation. At the end of the preschool stage the participating children's degree of readiness for school is measured and compared with that of other children in the same area; the influence of
preschooling can then be estimated on this basis. It is also intended to observe the children's adjustment to comprehensive school. The principal aim in conducting a summative evaluation at the conclusion of the experiment is to assess the usefulness of the solutions experimented with, to assess how the results obtained can be generalised to include all sparsely populated regions and how solutions can be applied.

2. CHANGE ANALYSIS

2.1. Anticipated obstacles and attempts to overcome these

Long distances are a big problem in sparsely populated areas. Mainly because of this the project is experimenting with various types of solutions with regard to preschool:

(1) Children living relatively near to schools (15 children) have been joined together with the combined grade I-II of the comprehensive school two days a week at the same time as grade I is at the school (altogether 6-8 hours a week). Teaching is taken care of by the regular teacher.

(2) Children living further away (53) are transported three days a week to the comprehensive schools in three school districts, receiving 3 hours of teaching in a group composed of only 6 year olds. (The reason for this may be the unsuitability of alternative (1) as a solution due to the size of the age group.) The children receive instruction for a period of one month every two months. During the interval periods, under the direction of their parents, they carry out the same work as the correspondence preschoolers. The six groups participating in this period teaching have the same mobile teacher who herself has received a short emergency training.

(3) Correspondence preschool is intended for those children (altogether 20) for whom school transportation is difficult to arrange. Correspondence teaching is taken care of by the Research Institute of Karjala. A weekly instruction letter is sent out to the preschoolers' homes from the Institute.
with the help of which the parents look after the children's instruction and guidance. Attached to the correspondence preschool is a monthlong summer school, mentioned above, which takes place in some school and to which the preschoolers are daily transported despite the difficult connections.

Problem aspects were anticipated with regard to all forms of solution. It was thought that the transportation of those receiving instruction in association with the combined I-II classes of the comprehensive school and those receiving period teaching would possibly be tiring for the children. The decision was therefore made to follow up the effects of transportation. The journey from one school to another for period teaching brings problems for the teacher. Because of this it was necessary to transfer one otherwise suitable group for period teaching to correspondence instruction.

Period teaching and the instruction given in association with combined classes I-II takes place within the comprehensive school where there is not, for example, sufficient play space for 6 year olds. Neither do the schools have the necessary equipment and materials. In preparing the experiment efforts were made to arrange suitable space within the schools and to acquire equipment and materials.

The teachers naturally require training with regard to teaching 6 year olds. This, neither the period teachers nor the comprehensive school teachers possessed. The teachers' training was included in the project design but there was only time to arrange this in a very abbreviated form for the period teacher. It was estimated that there would be difficulties for the combined I-II class teachers instructing 6 year olds to the extent that they were compelled to keep to the comprehensive school curriculum. Efforts were made to relieve this problem by organising other suitable activity for the 6 year olds, such as play, while the I-II classes were engaged in school activity. Here the main problem was in arranging supervision of the preschoolers in the absence of extra staff.

Decisively affecting the practibility of correspondence
instruction is the extent to which the family is willing and able to find time for the child's guidance and the degree to which the parents can be persuaded to collaborate. To encourage this, endeavours were made to visit the parents in order to tell them about the project and at the same time to bring preschool and play materials for the child. On the whole the parents were very interested in the idea of preschool and enthusiastic about the job of teaching. Naturally at the beginning of the project there did not exist a great deal of knowledge about their ability to guide their children's activity.

It was also feared that too much emphasis in correspondence teaching would be laid on cognitive development and thus particular attention was given to psychomotor and socioemotional areas; in accordance with the plans, this is also done at.

In all forms of teaching it was anticipated that problems of differentiation and individualisation would make their appearance due to the various levels of development attained by the pupils and it is difficult to find a solution to this kind of problem.

2.2. Unanticipated factors hindering achievement of the goals

The original intention was to use the results of the study on environmental stimulation when preparing the trial curriculum, but due to the scarcity of preparation time for the experiment and the delay in the environmental study, it was necessary to develop this curriculum for the autumn without the information afforded by this piece of research. The timetable is too tight and resources of the environmental study are too small, so that completion of the research will be delayed to early summer 1974.

The study, nevertheless, gives valuable information concerning the continuing development of preschool curriculum in sparsely populated areas. Delay in decisions of approval and financing of the plans, the tight and partial lack of resources have all to some extent given rise to problems.
A certain amount of uncertainty has been caused because the goals of development activity and the question of fixing the dates for the various reforms have been left open. In addition, the fact that finance decisions are made for only one year at a time has led to some uncertainty and affected the long-term planning of the research.

Originally the experiment was designed to be flexible so that changes could be made based on the experiences and other feedback received, but difficulties have been experienced. In the experiment in correspondence teaching, two multiple-problem families declined to continue directing their children's study. Evidently correspondence instruction is not suitable for this type of family. The experiment has also demonstrated that the child's environmental stimulation and the parents' possibilities to manage the task of guidance should be evaluated before any decisions are made. It should also be possible to follow how guidance is proceeding.

2.3. Present stage of the project

In operation at the moment are the research into environmental stimulation and the second school term of trying out various forms of solution as well as the evaluation attached to this. The activity of the coming school year is gradually becoming clear. The points appearing in the table below can be mentioned as some of the promoting/hindering factors in the project.

<table>
<thead>
<tr>
<th>Factors assisting change</th>
<th>Factors hindering change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All teachers have been enthusiastic about the project in all forms of the experiment.</td>
<td>Lack of teacher training for instructing 6 year olds. More time needed with consultants, who have too much other work and no time to get acquainted with problems of realizing the experiment. Two of the parents refused to continue guiding their children's study.</td>
</tr>
<tr>
<td>All primary school teachers participating have 5 years' teaching experience.</td>
<td></td>
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<tr>
<td>Parents are in favour of the experiment.</td>
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<tr>
<td>Ministry of Education,</td>
<td></td>
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</tbody>
</table>
National Board of Education, Social Welfare Administration support this kind of experiment. The project is especially important due to plans to lower the starting age of compulsory education.

In correspondence teaching, Insufficient teaching material and equipment as there are no basic materials in schools. Space is not suitable.

Local and regional decision-makers and resource persons must be connected with projects like this better than hitherto. Projects of this kind are difficult to put into effect only by means of central authorities. It should be possible to obtain trained personnel at local level ready for the job of realizing the project. There is a particularly great shortage of trained staff working with below-school aged children. Lack of both staffing and financial resources.

3. STRATEGY DESIGN

3.1. Future outlook of the project

Conditions for achieving the goals of the project include:
- assurance of sufficient financial and personnel resources for the project's next stages,
- closer link-up than before of the project with the general development plans of early education and early grades, and integration with other planning-experiment-and research-projects in the region.

This again would obviously presuppose obtaining a development programme sufficiently detailed in direction of activities. Planning concerning such a programme has been started.
Among the experimental forms of solution it appears that the most appropriate or instructing 6 year olds in combination with the lower level of comprehensive school is either instruction as a continuous sequence or as period teaching, where this latter is supplemented with correspondence instruction and possibly summer school. Correspondence teaching alone combined only with summer school appears to be insufficient. Correspondence teaching could also be employed as a method of educational guidance directed at the parents. When collaboration with parents in sparsely populated areas suffers due to long journeys, latters could be used for this purpose. Use of the telephone is also suitable here when this is available.

The effects of transportation on children should be investigated. During the experiment it has been confirmed that some of the children are tired by the journey, when this is made early in the morning and the 6 year olds also have to wait during the day for the regular transportation of the older children.

Totally missing from the experiment is the experiment with a mobile teacher. This would dispense with the problem of transportation. A mobile teacher could give instruction to small groups in private homes or in other possible spaces in various parts of the commune. Positive experience has been obtained in areas using mobile leaders for children's daycare.

The possibilities of using radio and TV teaching should be increased.

3.2. Strategies for overcoming problems anticipated in the realization of the innovation

Before application of the results of the present project and the results of other regional projects it should be made clear whether the circumstances in the experimental areas correspond in general to conditions in sparsely populated districts, so that the generalizability of these results can be assessed. Of obvious importance with regard to sparsely populated areas is that 6 year olds are included in the scope of the
comprehensive school so that all 6 year olds can have stimulating activity planned for them. This work would then be included within comprehensive school legislation and administration and its financial basis would be assured by legislation.

Conditions for the realization of this are:
- School space should be modified so as to be suitable for 6 year olds
- Teaching equipment and materials should be obtained for this age group
- The curriculum should be reorganized and developed so that it is appropriate for 6-7-8-year olds; the goals, contents, and methods of the early grades should be reformed and developed
- Teachers should be prepared for their new tasks through training.
APPENDIX 1. Preschool project in sparsely populated areas 1972-1975

Preliminary general design 9.11.1972

<table>
<thead>
<tr>
<th>Project Description</th>
<th>1972</th>
<th>1973</th>
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<tbody>
<tr>
<td>Preliminary work</td>
<td>XXX</td>
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<tr>
<td>Interview inquiry</td>
<td>XXX</td>
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<tr>
<td>Experimental design</td>
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<tr>
<td>Experimental curriculum</td>
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<td>X X X X X</td>
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<tr>
<td>Research into the children's environmental stimulation</td>
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<tr>
<td>Preschool experiment</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</td>
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<tr>
<td>Multiple-problem families study</td>
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<tr>
<td>Stimulating activity for the younger children</td>
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<tr>
<td>Adjustment of teacher training</td>
<td>XXXXXXXX</td>
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<tr>
<td>Charting of development obstacles</td>
<td>XXXXXXXX</td>
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<tr>
<td>Special preschool experiment</td>
<td>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</td>
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<td>Research into learning materials</td>
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<td>Research into the stimulation at daycare institutes</td>
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<tr>
<td>Research into the problems of preschool in sparsely populated areas</td>
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</table>

The experiment commune, Juuka and the Research Institute of Karjala are marked.