

**Nuorisoasteen koulutuskokeilut ja ammattikorkeakoulukokeilut.
Raportti 5.**

Open School for the Youth

**Three European Views on Developing Youth
Education in Finland**

**Nuorisoasteen koulutuskokeilujen kansainvälinen
arviointi**

**Edited by
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**Opetusministeriö
Ministry of Education
1995**

Preface

Esipuhe

In this report the Ministry of Education publishes the results of the International Evaluation of the experimental reform of upper secondary education in Finland. The purpose of the evaluation has been to consider the experimental reform of upper secondary education in Finland from the perspective of three European traditions. Therefore, Dr. *Göran Arnman* from the University of Lund, Sweden, prof. Dr. *Günter Kutscha* from the Gerhard-Mercator-Universität, Duisburg, Germany, and Dr. *Michael Young* from the University of London, Great Britain, were invited to evaluate the experiment.

The evaluation was completed in the experimental units of Hämeenlinna and Joensuu during one week in November, 1994. In February 1995, a working seminar was arranged to give feedback on the individual evaluations. Representatives from most of the experimental units, as well as the evaluators, took part in the seminar. The evaluators' common and conclusive report was completed in March, 1995.

This publication includes both the conclusive report and the evaluators' individual reports. Furthermore, there is background information on the experiment, description of the experiment process and results from the beginning of the experiment presented by *Ulla Numminen*, project manager, and *Matti Vesa Volanen*, researcher.

The experimental reform of upper secondary education in Finland has proved to be of interest in the international discussion on the status and role of the youth in education and working life. The experiment is "a step, ..., that is

important not only for Finland but for other countries engaged in similar changes”, like the evaluators conclude their report. With this report in English the Ministry of Education would like to contribute to the development of upper secondary education in Europe.

The Ministry of Education would like to thank the evaluators for their thoroughness and expertise in completing the evaluation in the experimental units and preparing the reports. The results of the evaluation are valuable for the development of further activities in the experiment.











Tässä raportissa julkaistaan vuonna 1992 aloitettujen nuorisoasteen koulutuskokeilujen kansainvälisen arvioinnin tulokset kokonaisuudessaan englanninkielisinä. Loppuraportti sisältyy julkaisuun myös suomenkielisenä.

Leevi Melametsä
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The Experimental Reform of Upper Secondary Education in Finland

International Evaluation Report

1 Introduction

In November 1994, an International Team of Researchers from Germany, Sweden and the UK was invited to Finland to evaluate the recent experimental reforms involving groups of upper secondary and vocational schools which began in 1992. Following our visit, we prepared three separate reports which we presented at a conference in Helsinki in February 1995. These reports were based on our visits to schools and institutes, our meetings with officers of the national and municipal authorities and on the substantial and helpful documentation that we received. Although our individual reports took distinctively different approaches, we found that we had much in common. In March 1995 we met in London for two days to plan a joint report. We see this as a summary report reflecting our joint assessment of the experiment. It is shorter than the separate reports and they should

be used as a resource to elaborate on the points we make here.

As we stated in our oral presentations to the Hämeenlinna and Joensuu municipal officials and to the Ministry, we did not set out to compare the experiments in the two municipalities. We saw our visits as an opportunity to assess the potential of the reforms for the system of post compulsory education in Finland as a whole. It follows that we do not make detailed reference either to differences between the municipalities or, except in one or two cases, refer to specific institutions.

Before beginning our report, we would like to express our great appreciation for the kindness, openness and patience (and as always, generous hospitality) of all the many people in Finland who we met during our week, and especially for all the help from the Finnish Experiment Project Team of Maarit Virolainen, Matti Vesa Volanen and Ulla Numminen.

2

Background and Context to the Experiments

2.1

Global Changes

It is useful to begin by identifying a number of trends common to all western countries. Firstly, they are going through rapid economic changes which pose new challenges to their educational systems, which, however are often criticised for lack of flexibility. The basic structures of the educational systems of European countries go back to a time when knowledge was a scarce resource (limited in scope, restricted in accessibility and difficult to achieve), when social hierarchies were unambiguous and largely unquestioned, and when the most prestigious pedagogic tradition was monastic. Secondly all countries are experiencing a growing internationalisation - expanding contacts across the borders, increasing mobility of capital, and wider membership of supranational organisations. The third trend is the growing demand by citizens for more influence on their own lives - not only their private lives but those aspects that are publicly financed, like health, social care and education. The two parallel movements - an increased international dependency and a growing demand for local influence - challenge the traditional role and influence of the national state.

A fourth common trend is the growing impact of technological change on the working life, which among other things has led to increased productivity, highly levels of demand for skill among the workforce and a drastically diminished number of employed. The only real expansion in working opportunities takes place within companies that require high qualifications or in the service industry.

Great demands for changes in the balance between services provided by public institutions and other solutions are also common features for many western economies. This change can lead to widening gaps between social classes, which also creates new problems for educational systems.

A fast changing society poses new demands on its citizens and it is up to the school system to meet part of these demands. Some of them can be realised by consciously bringing them forward as public issues, others by unconscious but indispensable adjusting to prevailing conditions. Some the school will never be able to deal with. A part of the rethinking of the role of formal education could be to recognise what actually can be accomplished within the school framework, and what is beyond school's capability to influence.

2.2

International Trends in Post-Compulsory Education

When the OECD launched its programme Changing Role of Vocational and Technical Education and Training (VOTEC) in 1990, all the member states of the organisation were faced with the problem that traditional educational concepts no longer met the general, cultural and specific occupational requirements of the future. There was a general agreement that educational systems had to become more flexible if the societal environment was to be controlled. Furthermore, all agreed that the rigid boundaries between different educational institutions in the area of compulsory education and the academically and vocationally oriented teaching programmes of the upper level had to be bridged. Finally, there was unanimity on the assumption that the new generation had to learn more than ever, to think in context, to search for interdependencies, and to assume responsibility.

Responsible action (in private life, politics and occupational practices) refers to an ability to reflect on, and to solve problems in specific fields of activity in co-operation with other people, as well as maintaining an awareness of the wider consequences of any action. Integrated learning in this sense was the key concept at the last VOTEC seminar in Paris 1994.

But what does integrated learning really mean? Easily the most important outcome of the seminar was the realisation that the importance of integrated learning is growing in the increasingly open learning situations in the OECD (and other) countries, and that there are no universal recipes for a constructive model of integrated learning. To use a paradoxical formulation, the global problem of integrated learning is global and cannot be solved by reform strategies based on centralised educational planning. In other words, as there are no ready-made solutions, and it would make little sense to rely on the ability central planning institutions to make the right decisions.

Modern educational institutions have, moreover, become so complex that meaningful solutions can be expected only if the educational authorities' expertise in their sphere of responsibilities is mobilised and utilised in an optimal way. However, decentralisation and a greater number of those involved in decision-making as such will not be enough to improve the quality of educational policy. Atomistic solutions to the problems stemming from the modernisation of educational systems can be avoided only if decentralisation is connected with networking and if the decentralised networks of, say, local organisations are coordinated on both national and supranational levels with the increasingly common goals of central decision-making institutions.

As a result of the recognition of these trends, a general international consensus on priorities for educational policy is emerging which can be described in terms of the following three priorities:

** the need to develop educational systems in the direction of equal chances for all children and young people, and the avoidance of blind alleys in the personal development and occupational careers of individuals*

** the need to decentralise and network decisions, and co-ordinate local decision making with supra-regional, national and international developments*

** the need to integrate learning by means of boundary-breaking educational processes based on the bringing together of general as well as specialised and vocational learning processes*

These are far-reaching and still very general goals. Finland is moving towards the translation of the tasks and goals sketched above into concrete reform measures. As mentioned above, in all the OECD countries there is a consensus that the dynamic development of the present day world presupposes the thoroughgoing reform of traditional educational systems. In particular, the sharp distinction between general and vocational

education is becoming increasingly obsolete. The Finnish Upper Secondary Education Experiment must be seen and evaluated in this context. Having said this we also recognise, that especially in the area of education, each country has a tradition of its own which will for better or worse, shape the way it interprets common and international trends. The next section, therefore, draws on the analysis of Finnish researchers to link trends in the wider European context to developments in post compulsory education in Finland.

2.3

Historical Background to the Upper Secondary Experiment in Finland

Kivinen and Rinne (1992) trace the origins of the Upper Secondary experiments to the consequences of previous Finnish reforms of the 1970's when a divided system of basic education was replaced by comprehensive schools for all pupils up to 16. This inevitably led to the expansion of the senior secondary schools and the proportion of students achieving matriculation and to a downgrading and, in some cases, a lack of recruitment to vocational schools. Kivinen and Rinne comment that the vocational schools were seen by many as 'cul de sacs leading nowhere' like the old citizens' schools in the pre-comprehensive era.

In theory, at least, the Finnish government of the early 1980's had three

options in responding to these developments. *Firstly*, they could have encouraged the senior secondary schools to expand and allowed the vocational schools to contract and develop a limited role of (a) providing a work-related alternative for the 10% of students who did not want to continue in full time education after 16 and (b) providing vocational education for students who complete their secondary education but do not go to university (something they were increasingly doing anyway). *Secondly* they could have opted for a comprehensive reform of upper secondary education, or, *thirdly*, as in fact happened, they could reform the vocational schools in the hope that (a) they would provide a post compulsory education for all who did not go to the senior secondary schools and (b) this would make the reformed vocational schools attractive enough to draw some students away from the senior secondary schools.

The predictable result was that demand for the senior secondary school continued to grow. At the same time universities expanded more slowly than the numbers achieving matriculation and the more prestigious vocational courses began to be filled by 18+ year olds who had completed their matric but not got a place at university.

At the end of the 1980's the possibility of comprehensive reform of upper secondary education became explicitly on the agenda with a proposal for a comprehensive upper se-

condary (or Youth) School along the lines developed in Sweden. What is interesting from the point of view of this evaluation is that many of the features of the proposed Youth School - breaking down barriers between academic and vocational institutions, flexible curricula and greater student choice, cross-institutional collaboration at the local level, relating student programmes to individual learning needs - have become part of the experimental reforms. Opposition to the Youth School reforms, which were seen by some to threaten the much valued senior secondary school, was overcome by (i) establishing 'pilots' rather than national reforms, and (ii) basing the experiments on local consortia which left the senior secondary schools intact. The question then becomes whether local consortia of schools (together with the parallel reforms of higher education) can tackle the problems that are thrown up by (a) the increasing demand for upper secondary education, (b) the bottleneck that this creates at 18 or 19+, and (c) changes in the world economy, and the emergence of increasingly uncertain and unstable labour markets.

2.4 Aims and Objectives of the Experiment

We were asked to comment on the aims of the experiments. We do this by offering our interpretation of their aims in terms of (a) the new aims and

objectives for upper secondary education that they express, and (b) changes in the institutional means for achieving these aims that they imply. We see the aims as:

** Extending general education beyond the comprehensive school for the growing numbers who want (and need) it.*

** Providing a greater variety of routes into higher education through general and vocational education*

** Providing a foundation for more specialised vocational education*

** Enhancing the status and quality of upper secondary vocational education*

** Enabling young people to postpone decisions about their occupational future beyond 16+ in view of the uncertainty of future employment patterns.*

In other words, the emphasis of secondary education has shifted from selection for higher education and the labour market through the division between senior secondary and vocational schools (a role increasingly taken over by a more diversified post secondary sector) to increasing participation and raising standards of all those leaving the comprehensive schools.

The experiments were designed to ensure that these aims could be achieved by students whether they attended a senior secondary school or a vocational schools. Hence the crucial

role of (a) local institutional collaboration, (b) curricula flexibility and student choice within and between schools and (c) more attention to educational guidance and counselling.

The experiments can be seen as the Finnish attempt to tackle a number of priorities for educational policy that are increasingly shared in other European countries. These are to:

** increase flexibility and student choice*

** decentralise decision making*

** integrate learning across the academic/vocational divide*

3

Evidence the Success of the Reforms from the Experience of Teachers and the Students

3.1

Introduction

We were asked to evaluate the upper secondary education experiment in Finland against the experiences of reform in our three countries. However, drawing on and interpreting what was said to us by students and teachers requires considerable caution. Such a complex reform project as the Finnish upper secondary experiment could only be reliably evaluated after a much longer stay in the country. This is as true of the Finnish reform project in its entirety as it is of the experiments in municipalities like Hämeenlinna and

Joensuu. Nevertheless, with these reservations in mind, we do feel it possible to draw some initial conclusions based on the conversations we had with the students and teachers that we met. Our general conclusions from our visits and reading is based on three propositions as follows:

1. The experimental reform of upper secondary education in Finland is a bold yet carefully prepared step in the direction of modernising the Finnish educational system in accordance with international developments and along the lines laid down by the OECD and the EU.

2. According to our observations, the regions, educational institutions and students participating in the experiment benefit considerably from the reform without obvious detriment to those young people who do not take part in the experiment or do not want, or cannot derive benefits from it. Whether the greater opportunities taken up by some students amount to a relative disadvantage to those who do not take advantage of them is a question we leave open.

3. In our view the overall question facing those involved is not to judge the success or failure of the experiment as such. Rather, the task is to optimise the positive potential of the reform by attempting to improve the conditions within which the experiment has to operate and by modifying the variables external to the experiment, in so far as these can be controlled by educational policy.

According to the documents and project reports of the Finnish Ministry of Education the main objective of the experiment is to open up hitherto relatively strong barriers between the senior secondary and vocational institutions of the educational system, to offer more freedom of choice to the students, and more generally to move towards a more flexible system. All our discussions suggested that the aim of increasing individual and institutional flexibility was the main issue and widely accepted. In our evaluation we tried to explore not only whether there was evidence of greater flexibility but what it meant, both in relation to teachers and students and in its institutional aspects.

From the point of view of students, flexibility is conceived as having more individual freedom of choice. For many of the students we met, being able to choose one's course of study was highly valued. Finding that they had freedom to choose, which was something they had not experienced in the comprehensive school gave them a feeling of finally being able to take over a share of responsibility for their own education. We found some evidence of a contrast between the more adventurous attitude of female students, especially those in the upper secondary schools and a clearly more conservative attitude that could be noticed among the young men, particularly those studying in more technical areas like mechanics. As one mechanics student said: Why should

I visit the senior secondary school? I don't know anybody there, and I'm not interested in studying anyway... It would be better if we could learn more for our occupation here in our own school. The point we would stress is, firstly, that we could well have met the students who were most articulate about their experiences of the experiment and secondly that the opportunities for choice impacted very differently on students with different aims and experiences. In the next section we describe the reactions of students from the two different types of institution.

3.2 Students at Vocational Institutions and Their Choices

The motives that led vocational students to participate in courses in senior secondary schools varied. Some were aiming for the matriculation examination, whereas others had made choices just for fun and out of interest in the subject as such. The motivation of the first group expected to broaden their options for an uncertain future. They did not expect any personal educational enrichment from the senior secondary school, but saw the experiment as an opportunity to improve their future career chances.

Those vocational school students who chose courses at other senior secondary schools 'just for fun' were mainly girls. The fields chosen ranged from foreign languages to astronomy

and meteorology at the university, or to a course at the local conservatory. The advantage of the experiment when compared to more prescriptive models of general education for vocational students as in Germany, is that it relies on and supports student initiative. As young adults, the vocational students want to decide for themselves what they want to learn outside the vocational curriculum. The opportunity itself to make such decisions is an important educational experience for them in their personal process of growing up.

The proportion of students in vocational institutions attending courses at other vocational institutions is relatively high compared with other student groups in the experiment. Some saw it as 'doing something different', another that she "just wanted to take a break, do something what is practical and makes fun. What this illustrates and impressed us was that the experiment seemed to be giving students more opportunities to reflect on their education, and therefore to be more active participants in their own learning.

The opportunities for choosing a contrasting programme was important for many students, especially the young women in the commercial institutes, who chose courses in hair care, cosmetics, pottery, cooking, nutrition and health care. Those who wanted to deepen or broaden their vocational education, or even to acquire dual qualifications within their

professional education were few and usually boys in fields such as computing. They realised that although computer courses were available at their own school, the hardware and provision of computer-related education was inferior compared with that available at the specialised institute. This example points to the basis of a framework for making the best possible use of the available resources to the benefit of the local community, i.e. by combining specialisation and co-operation.

Vocational student attitudes to attending senior secondary schools varied greatly. Some saw it as an important way to meet other people and to get new contacts outside the old circle of friends. For others the senior secondary school is a rather strange and frightening environment, and they sometimes reported negative attitudes from other students. "They look down on us coming from a vocational school. They are much too arrogant for me... Maybe they don't want to have us at all. Such statements suggest that it is not only the quality of the contents of the available courses, but also the way the provision is made transparent and the way social contacts are formed that are important. Teachers and students of senior secondary schools and vocational institutions have as yet rather little experience in mutual exchange of activities.

We found little evidence of transfer between the commercial and the technical institutions and the students

we met who attended technical courses showed little interest in the experiment and could not see the point of it. What might explain this is not so easy and may vary from student to student. For some the more work related context of the vocational school is somewhere they feel little confidence and security in, where as for others who have already got tired of formal schooling it is a welcome change that they have been waiting for. It may be that for both groups choosing another school makes little sense.

Finally, we should mention those students, as yet very few in number, who saw combining vocational and academic study as a form of educational enrichment. It is this motivation that is likely to be supported by more attempts to 'integrate learning' and which begin to symbolise a 'curriculum of the future'. We came across exciting examples of such possibilities in both in art and music and in textiles design.

3.3 Students at Senior Secondary Schools and Their Choices

The proportion of students in senior secondary schools who attend courses in other senior secondary schools is comparatively low. For those that do, it is the content of the courses that was the decisive factor—for example, foreign languages, arts and sports. Many students made their choices on the basis of hobbies or per-

sonal interest. The following comment by a student was typical: "I do hair-dressing. That has nothing to do with my classes at the senior secondary school, and I don't have the intention to do it later on professionally. But it is relaxing. That way I can concentrate much better on my subjects for the matriculation examination". Or: "I attend a pottery-course at the vocational institution. That is real fun. It makes me realise that I don't only have a head, but also a pair of hands". And one last statement made by a male senior secondary student: "I have chosen a course at the business college. Why? Well, I want to earn much money in future, and I want to know how it is done". It was a kind of personal pre-vocational education, experimenting a little by themselves by visiting vocational institutions in order to find out, what they could do and would like to do after the matriculation examination.

The conservatory had a very special role in the area of music education for the senior secondary students in Joensuu. Quite a few of the senior secondary students visit the conservatory in order to find, if they have enough talent for a professional education. Teachers at the conservatory indicated that there were quite a few students from the senior secondary schools, who had this attitude. They are highly motivated, and themselves make a contribution to the conservatory. The experiment makes it possible for these students to start

their musical studies at the age of 16/17 years, without the risk of dropping out from their studies at the senior secondary school leading to the matric.

3.4

Student and Teacher Experiences of the Problems of Implementing the Aims of the Experiment.

3.4.1

Introduction

It is inevitable that in any experiment those involved directly in the process of implementation will experience some barriers and blocks. In this section we describe some of these barriers as they were experienced by teachers and students. For convenience we distinguish between three types of barriers to implementation; these are (i) problems associated with the internal and local administration, (ii) the cultural barriers of a divided upper secondary system that the experiment is designed to reduce, and (iii) external structures that inhibit the experiment and will require government action at a national level, if there is really a determination to take the experiments forward.

3.4.2

Problems Associated with the Internal and Local Administration

Students complained about the coordination problems between the participating educational institutions, lack

of information about the provision as a whole, lack counselling in their own school, and difficulties of communication between senior secondary schools and vocational institutions in the consortia. The points most frequently made by teachers and counsellors were increasing administrative work, complications with planning of the courses, time-bottle-necks and content-related deficiencies related to the preparation of students for the matriculation examinations. They also commented on the personal implications of diminishing provision of courses in less appealing subjects. Some teachers and counsellors felt that the administrative provisions for carrying out the experiment had not been sufficiently sorted out, and that the resulting problems had been pushed on to them, and in the end, the students. Criticism regarding organisational deficiencies on one hand, and complaints about the accumulation of organisational burdens on the other hand, are no contradiction as such, but rather an expression of the new organisational problems any exercise in decentralisation gives rise to. Any experiment mean extra work, transition problems, as well as risks; otherwise it would not be an experiment. Most of the teachers we spoke to emphasised that they were ready to commit themselves to the experiment, and that they also were ready to invest an extra amount of work into it. Their criticism regarding organisational and other deficiencies was that it meant that bureaucratic demands got in the

way of their pedagogical work with students.

Within the schools there teachers reported a growing number of local meetings, but their scope, contents and number of persons engaged varied widely between anything from merely a handful of enthusiasts to gatherings comprising almost all the teachers in the school, and from discussions concerning the planning of individual educational modules to the elaborate devising of complete education schemes, working methods and forms, contents and evaluations. If staff involvement is widespread and students are drawn into the process of change, the experimental reform could become a part the democratisation process of school work for both the staff and the students.

Some teachers commented on the limited personal, material and time resources were available for innovative projects, in the initial stage of the experiment. That is not an unfamiliar experience of those involved in innovations.

3.4.3

Cultural Barriers to Integrating General and Vocational Learning

The institutional separation between senior secondary schools and vocational institutions and the differentiation between educational pathways appeared to be more marked in Finland than in other countries. This was expressed in a variety of ways.

Firstly, students and teachers in the two types of school had different, and not always positive perceptions of each other. Some typical comments were - "not enough hard work or discipline", "they have low expectations of the students", "they never get to know the students", "they are stuck in the past and out of touch". These partly reflected the separation of the different types of school and the lack of knowledge teachers in the different types of school had of each other. However it also related to the demands of different kinds of learning and the different pedagogies that this gives rise to.

Secondly, although we saw examples of integrated learning in the courses at the vocational institutions, we did not find it used in collaboration with senior secondary schools or rewarded as a special achievement and recognised in acquiring matric grades. Students attending combination courses at senior secondary schools and vocational institutions are confronted with two different cultures of knowledge and it is the students who have to integrate the two cultures. They mostly described their experiences as adding extra courses rather than integrating them.

Thirdly, the cultural barriers between the two types of education seemed to inhibit attempts to utilise the experiment and its broadened possibilities of collaboration to explore new instructional contents and methods for bringing general and

vocational education together or to explore new educational pathways leading to the combination qualification, as laid down in the objectives of the experiments.

3.4.4 External Constraints

Many of the barriers described to us reflected the limited nature of the reforms and the fact that they had not taken into account all of the factors that determine the opportunities for students to make choices. Here we list a number of these based on our observations and what we were told by teachers.

Teacher conditions of service

Teachers felt that the way they were paid and their conditions of service (in particular, the number of hours they were expected to teach) were not conducive to institutional collaboration and greater flexibility. Teacher unions were mentioned as largely concerned with preserving existing conditions of service, and therefore existing curricula.

Low national profile of the experiment

The relatively low national profile of the experiments was reflected in the lack of awareness among many of the teachers of just what the experiments were designed to achieve, especially in curriculum terms. Most teachers

knew that the experiments were about increasing student choice and making provision more flexible but were less clear about what this greater flexibility was designed to achieve. Similarly with the idea of local collaboration between schools. It may be that it was because of this lack of curriculum debate that teachers were often unaware of the scope of the new arrangements and how much flexibility in the matriculation examination was now possible.

Examinations

The demands of the matric examination were frequently mentioned as one of the barriers to a more flexible timetable. However this may have been a traditional assumption on the part of schools rather than reflecting the actual matric regulations for the schools involved in the experiments. The dual system of certification for the matric and vocational was itself seen as inhibiting experiments in integration by some. As long as the two tracks have completely different approaches to assessment, where the matric requires external examinations and students get grades and the vocational certificate is given by individual schools and is ungraded, enrichment across the divide will remain limited. Vocational students will feel inhibited by examinations of which they have no experience and academic students will only be able to choose vocational options for the parts of the matric that do not have to be examined.

Lack of transparency

Many teachers (and students) are unclear about the more flexible arrangements for the matric examination that the experiment has made possible, and there was a general sense of lack of information about the experiment in the schools.

Ownership and management of schools

There were two aspects to this issue. Firstly, academic and vocational schools are still administered separately and we heard of three or more forms of ownership for schools and institutes in any locality, each with different rules and regulations. Secondly, we heard from one Head teacher of his limited autonomy - his lack of scope for shifting funds to expand administrative support or additional counselling, and for changing job descriptions. The point was highlighted by the exceptional case of Joensuu Normal school, which, since it is 'owned' by the university is in a unique administrative position.

It was evident from our conversations with staff that this gave the school a number of advantages in relation to the experiment. The greater independence of the school and the fact that it had, within national guidelines developed its own curriculum prior to the experiment had given the teachers more of a sense that it was 'their curriculum'. This gave them the confidence to take risks - not only in

encouraging more choice but in taking advantage of the new flexibility in the matric regulations. The point is not pick out one school but to indicate both the conditions for a more flexible curriculum and its possibilities.

Progression to higher education

Progression to higher education for those taking combinations and other choices. We suspect that this will depend considerably on the success of the polytechnic experiments as well as the experiments in upper secondary education.

4.

Benefits and Problems of the Experiment Identified in the Evaluation

4.1

Introduction

It may appear this section focuses more on barriers to achieving the aims of the experiments than on the undoubted progress that has been achieved. This is inevitable for a number of reasons and should not be interpreted negatively. Firstly, we are discussing local changes in a relatively small number of schools, with very limited additional resources taking place in an unchanged national system. This means that it is unlikely that the existing distribution of resources and traditional educational culture will be supportive of the aims of the exper-

iments. Secondly, the experiments cannot be seen in isolation from the rest of the education system - especially the universities and the comprehensive schools, or from the wider community of parents and employers. Bearing in mind the resistance to earlier proposals to change the senior secondary schools which led to the dropping of the Youth School proposals, the actual progress and interest in the experiments is impressive. Furthermore as we have referred to in a previous section, there are all kinds of practical difficulties associated with establishing consortia (such as creating common timetables) and getting students and teachers to think in terms of attending classes in schools other than their own. Thirdly, in any international comparisons, Finland already has a successful system of upper secondary education. It is undoubtedly popular, it has high levels of overall participation, it has large numbers achieving matriculation or a vocational certificate, it has a world wide reputation in teaching foreign languages and it has a range of high quality specialist vocational institutes and programmes.

This section of the report, therefore, looks at benefits and problems in terms of the three priorities outlined at the beginning. They are:

** increasing the flexibility of the system and the opportunities for students to make choices*

** de-centralising decision-making and promoting the capacity of*

institutions and consortia at the local level

** integrating academic and vocational learning.*

We will draw on the observations presented in the previous section in relation to each of the aims.

4.2

Increasing Flexibility and Student Choice

Increasing opportunities for student choice was the major aim of the experiment. On the basis of our meetings it was clear that this was responded to with enthusiasm by many students. It made them feel more adult, made their education seem more meaningful, increased their motivation and enhanced their capacity for self reflection and taking responsibility for their own learning. Moving beyond these general statements, it was clear to us that (a) students attached very different meanings to choice and (b) the opportunity for making choice was perceived very differently by different groups of students. Some saw it expressively as an opportunity to do something for fun, as a hobby or as relaxation while others saw their choices more instrumentally and as much more related to their future. Students made choices within and between institutions. Here we will concentrate on inter-institutional choices. Four types of choice can be distinguished as follows:

**** vocational school to vocational school***

- these were usually contrasting choices, sometimes just for fun or to 'have a break'. Very few vocational students saw themselves as deepening their vocational studies.

**** vocational school to senior secondary school***

- these were a minority and rarely concerned with enhancing general education as a way of getting into university. More typically students saw this choice as an opportunity for new learning experiences.

**** senior secondary school to senior secondary school***

- these choices tended to involve taking up opportunities in schools specialising in areas such as music, art and alternative foreign languages.

**** senior secondary school to vocational school***

- in numerical terms, this was probably the dominant group of students that we met. They can be split into those who were opting for some hobby related activity-sport, craft or beauty care, and those more specifically concerned with developing vocational skills- e.g science laboratory work or first aid. We should stress here that the Conservatory presented a special case of its own; it would be misleading to equate it with other vocational institutes.

Attempting to introduce greater flexibility is not without its problems. We came across four broad kinds of problems during our visits to the

schools and institutes in Joensuu and Hämeenlinna.

The *first type* of problem was when those involved in the experiments came up against administrative and other barriers or a lack of sense of direction of the experiment as a whole. We found evidence of a lack of information, and lack of local co-ordination between schools, and a sense that though most teachers thought greater choice was a 'good thing', they were less clear about the overall purposes of a more flexible system. There were no alternative curriculum models for the schools to relate to and in terms of which students could make their choices.

The *second type* of problem was the variability of commitment to the experiment between and within schools; for example some schools opened all their classes to students from other schools whereas in other cases the common timetable was restricted to two afternoons. This unevenness is an inevitable feature of any reform. However it may have been exaggerated by the small amount of resources (and therefore limited incentives to change) that had been made available for the experiment.

The *third type* of problem associated with increasing flexibility and choice which we considered was whether there were 'losers' from the experiment and whether, if they were, they should be equated with 'non choosers' or those who appeared not

to take advantage of the new opportunities.

The *fourth type* of problem related specifically to the experiences of teachers. Some worried about the growing size of popular classes and others that their own job might be threatened if they were not taking a popular class.

Our view, which must be tentative, is that the experiment was more successful for those in senior secondary schools than for those in vocational schools, and that increasing opportunities for choice did little for lower achieving students (usually from working class backgrounds) who found themselves on the less popular vocational courses. In the sense of 'opportunities not taken' these students could be seen as 'losers'. However losing should not be associated with 'not choosing'; for some vocational students it was clear that they had made a positive choice in opting for engineering, health care or textile design and further choices had no meaning for them.

4.3 Decentralisation and Co-ordination of Decision Making

The second key instrument of reform in the experiments was to decentralise decision by promoting local institutional collaboration. We heard about many instances of such developments. For example there have been inter-school meetings of teach-

ers, arrangements for the extension of common timetables, regular meetings of Heads of institutions who had never met before, and the beginning of a real sense of schools being part of a 'local system'.

However, self organisation in a system which has traditionally been highly centralised is not easy. Timetables are difficult to co-ordinate, common frameworks are lacking and teachers fear that such developments will threaten their jobs. It was not surprising, in such a context, that we heard of teacher unions fighting defensive 'battles of the past' rather than planning strategically to enhance their members opportunities in the future. A number of issues struck us forcibly as visitors, (i) there was a general lack of knowledge and information about the experiment; this related to local knowledge of different school offers and national knowledge, especially about such things as new matric regulations, (ii) the way local collaboration (and hence de-centralising of decision-making) was hindered by the complicated multiple 'ownership' of schools and institutes, and (iii) the failure on the part of those designing the experiment to recognise that a corollary of local decision making is local power. In other words, if schools cannot decide their own budgets and staffing, they will have limited scope for collaboration.

4.4

Integrating Academic and Vocational Learning

One of the hoped for outcomes of the experiment was the development of Open Learning situations in which students would be able to integrate academic and vocational learning. Types of integration can be distinguished in two ways; the first relates to whether the integration is additive or connective. Additive integration refers to when students achieve a qualification (a matric or a vocational certificate) by completing a required number of courses taken from previously separate programmes. We came across many examples of this form of integration where students were combining academic and vocational courses from different schools. Connective integration on the other hand is not just a quantitative combination of different courses; it involves explicit links between general and vocational teachers and, for the student, between learning in different courses in relation to agreed overall purposes. We saw only a few examples of connective integration-for example, a course which linked biology, geography and art and in another case one linking visual arts, sports and music.

The second way in which types of integration can be distinguished is whether they are exclusive or inclusive of learning in workplaces, in the sense that is familiar in the German dual system (or other forms of alternance). We did not find examples of integ-

ration which explicitly included learning in workplaces.

Our conclusions in relation to the aim of integrating learning is that the experiment is at a first stage. The system has been opened up, there are possibilities for new types of integration, but as yet they have not been taken. Teachers have also been showing somewhat uneasy feelings about what will happen, when the different courses of study are more clearly will be competing for the students preferences. Will the increased freedom of individual choice function like the market, i.e. are the most popular subjects going to survive whereas the less appealing subjects are knocked out?

5.

Conclusions, Recommendations and Ways Forward

We were impressed by the progress made, the efforts of many teachers and the enthusiasm for the experiment that was shown by the students that we spoke to. We are convinced that there will be no turning back, only finding ways forward, not only to increase the choice and flexibility of the system but in developing a vision of how the greater flexibility might be used most creatively. It is therefore in the spirit of looking forward that we offer our concluding remarks.

An experiment to increase the flexibility of a system involves change,

choice and decision on the part of *all* those involved. In our visits we were struck that the emphasis was on students choosing, and students moving from school to school. The teachers involved were opening up their classes to students from other schools and Institutes, but they were not as far as we could see offering many new classes, either on their own or in collaboration with colleagues, nor were they forming joint teams and teaching in each other's schools. Such developments could have a number of advantages; for example, overcoming lack of knowledge between different types of school, and encouraging students to make choices that they might not have risked if it had involved going to an unfamiliar schools. We also thought that some of the focus of the experiment could shift from choosing between schools to creating options for choice within schools. Schools with greater internal flexibility are likely to encourage greater collaboration between them.

The issue of transparency recurred again and again. An experiment designed to decentralise decision making requires radical changes to the kind of information system that characterises a centralised bureaucracy. We feel that the use of electronic networking, which Finland uses extensively in its international links, could be developed within and between consortia. This would help local consortia know what each other were doing and improve communications between the Ministry and the local consortia.

The last point we would stress is that it is important to recognise that the experiment is at a turning point. It has shown the possibilities of greater flexibility, and demonstrated that it is welcomed by students and many teachers. The next step is to explore ways of realising the potential of the new found flexibility. Otherwise it could become the new rigidity. This has two related aspects. Firstly, alternative visions of a flexible curriculum and its links to future employment and a more diversified higher education sector need to be developed. This needs international visits and research as well as practitioner/researcher, administrator seminars. Secondly, specific experiments in collaboration and integrated learning involving different types of school needed to be resourced and evaluated. A Finnish curriculum of the future is needed to provide the motor to take the experiment forward and encourage the more conservative schools to get involved. It will be likely to have not only broad aims and purposes representing a new vision,

but indications of the new kinds of learning pathways for students that it will make possible, and exemplars of pedagogic and assessment innovations that have already been tried.

We regard the Finnish Experiment as an example of a step towards creating a system of post compulsory education for a Learning society, that is important not only for Finland but for other countries engaged in similar changes.

References

Kivinen, O. and Rinne, R. (1992) Educational Strategies in Finland in the 1990's Research Unit for the Sociology of Education, University of Turku

NB We refer readers who are interested in exploring further some of the issues we raise in this report to our individual reports which were presented at the February 1995 conference in Helsinki.¹



¹ See the following sections in this publication.

The Experimental Reform of Upper Secondary Education in Finland

An International Evaluation Results and Aspects

1 Introduction and Basic Arguments

This paper summarizes the most important findings in my evaluative study of the experimental reform of upper secondary education in Finland (from now on upper secondary experiment). I obtained the data by discussing with and interviewing teachers, students, representatives of the Ministry of Education, and members of regional Executive Committees during a week's stay in Hämeenlinna and Joensuu in November 1994, as a member of an international evaluation team. During this evaluation period I visited three senior secondary schools and five vocational institutes. I interviewed a total of 25 teachers, discussed individually with over 30 students, and had five group discussions during lessons. Experiences gained in different educational institutions in the two regions were exchanged between myself and my colleagues, Professor Göran Arnman of the University of Lund

(Sweden) and Professor Michael Young of the University of London. The results of our study were presented to and discussed with the Executive Committees.

All evaluators were asked to analyse the upper secondary experiment in Finland against the reform experiences in their home country. This I do with mixed feelings. It is my conviction that especially in the area of education every country has a tradition of its own, and this should be the case in reform projects as well. At the same time, however, global changes in technological, economic and cultural spheres more than ever require the exchange of reform ideas and experiences. In this sense our evaluation project could serve as a small contribution to the international reform discourse.

The experiment was authorized in 1992. A year later there were 16 upper secondary experiments under way in Finland in which a total of 142 senior secondary schools and institutes of vocational training participated. The

maximum number of students during the school year 1994/1995 should be around 35,000. In view of these figures it is easy to understand that the empirical basis of our study - in terms of both scope and timing - does not allow for generalizations. Thus, the validity of the results of our study is restricted to Hämeenlinna and Joensuu areas. Even then, caution is recommended. Such a complex reform project as the Finnish upper secondary experiment lends itself to an adequate and fair evaluation only after a longer timespan. This is as true of the Finnish reform project in its entirety as it is of small experimental regions like Hämeenlinna and Joensuu. All the more indebted are the members of the evaluation team to all interlocutors for their willingness to discuss openly and critically the experiences in the upper secondary experiment.

Despite the reservations mentioned above, my experiences in evaluating other national and international reform projects have convinced me that it is advisable to begin the scientifically informed exchange of experiences as early as possible. Evaluative studies that have only summary conclusions to offer at an advanced phase or, worse still, at the end of an experiment can hardly contribute to the optimization of the reforms.

My report will focus on the following theses:

* The experimental reform of upper secondary education in Finland is a

bold yet carefully prepared step in the direction of modernizing the Finnish educational system in accordance with international developments and along the lines laid down by the OECD and the EU (see Part 2).

* According to my observations, the regions, educational institutions and students participating in the experiment benefit considerably from the reform impulses, without detriment to those young people who do not take part in the experiment or do not want, or cannot, derive benefits from it. In other words, there are many winners in the experiment, but no losers; at worst, there are non-winners (see Part 3).

* In my view the overall question is not about the success or failure of the experiment as such. Rather, the task is to optimize the positive potential of the reform attempt by improving the internal experimental conditions and by modifying the variables external to the experiment, in so far as these can be controlled by educational policy (see Part 4).

2

The Concept of the Finnish Upper Secondary Experiment in the Context of International Developments towards Educational Reforms and the Reform Experiences in the Federal Republic of Germany

The need to reform the prevailing educational systems is a topic of world-wide discussion. It is the question of basic modernization attempts in view of the requirements of the world in a state of flux. Life has, of course, always been subject to change; the relationship between generations has always had to be renegotiated, educational institutions critically evaluated, and curricula and strategies of education revised. Nevertheless, the processes of change in today's world differ in important ways from the changes in earlier times. This is true both of the dynamics of the changes and of the complexity of their interaction with world-wide social, economic and technological developments:

* The necessities for economical rationalisation pose increasingly problematic situations on the labour market. This goes today for both unskilled and skilled craftsmen, as well as for technicians and academics.

* The globalization of the production and the markets, as well as the rapidly accelerating flow of information call for flexibility, increased speed

of reaction, and integrated production concepts instead of taylorized ones.

* Compared with the rapid developments within the employment system, the national educational systems have proved to be reform resistant and too immobile.

* Losers of this inflexibility are those young people who trust in the seriosity of governmental education certificates, but who are confronted with the unpleasant fact, that even high quality diploma loose value and increasingly loose relevance for the professional career, as they are no longer informative with regards to the capabilities of the graduates in relation to the qualification requirements of the employment system.

* The problem not to know what professional, social and human competences and skills will be required five or ten years from now, often causes short-termed actionism and curing of symptoms.

However, in future nothing will remain the same as it is now, regardless whether we want it or not. Repairing details only will not help. But what can an educational reform look like today, if the future is unpredictable and the past does not provide any solutions for coping with the present? As I see it, those times are gone, when it still was possible to manage educational reforms by the means of closed curricula. Within a conceivable timeframe the opening up of the educational systems cannot be avoided. Decentralization of

the syllabus and self-organization of the learning processes will gain importance.

When the OECD launched its programme Changing Role of Vocational and Technical Education and Training (VOTEC) in 1990, all the member states of the organization were faced with the problem that traditional educational concepts no longer met the general cultural and specific occupational requirements of the future. There was a general agreement that educational systems had to become more flexible if the societal environment was to be controlled. Furthermore, all agreed that the rigid boundaries between different educational institutions in the area of compulsory education and the academically and vocationally oriented teaching programmes of the upper level had to be bridged. Finally, there was unanimity on the assumption that the new generation had to learn more than ever, to think in context, to search for interdependencies, and to assume responsibility.

Responsible action (in private life, politics and occupational practices) refers to an ability to reflect on, and to solve - competently, with an awareness of the speciality-bridging consequences of action, and in cooperation with other people - problems in specific fields of activity. Integrated learning in this sense was the key concept at the last VOTEC seminar in Paris 1994. But what does integrated learning really mean? Easily the

most important outcome of the seminar was the realization that the importance of integrated learning is growing in the increasingly open learning situations in the OECD (and other) countries, and that there are no universal recipes for a constructive model of integrated learning. To use a paradoxical formulation, the global problem of integrated learning is global and cannot be solved by reform strategies based on centralized educational planning. In other words, as there are no ready-made solutions, it would make little sense to rely on central planning institutions' ability to make the right decisions. Modern educational institutions have, moreover, become so complex that meaningful solutions can be expected only if the educational authorities' expertise in their sphere of responsibilities is mobilised and utilized in an optimal way. However, decentralization and a great number of decision-makers as such will not be enough to improve the quality of educational policy. Atomistic solutions to the problems stemming from the modernization of educational systems can be avoided only if decentralization is connected with networking and if the decentralized networks of, say, local organizations are coordinated on both national and supranational levels with the increasingly common goals of central decision-making institutions.

There seems to be at present a general international consensus on the following three perspectives into the

development of educational policy and planning:

* Development of the educational system in the direction of equal chances of education for all children and young people, and the avoidance of blind alleys in the personal development and occupational career of the individual

* Integration of learning by means of boundary-breaking educational processes based on the inclusion of general as well as specialized learning processes

* Decentralization and networking of decisions, and their coordination with supra-regional, national and international developments

These are far-reaching and still very general goals. In the everyday life of different educational systems, continuity with change prevails. The upper secondary experiment in Finland is a bold and carefully prepared step in new directions and towards the translation of the tasks and goals sketched above into concrete reform measures.

3 Developments and Achievements of the Upper Secondary Experiment in Hämeenlinna and Joensuu as Seen by the Students

3.1 Objectives, Motives, and Experiences of the Students - Common Trends

According to the documents and project reports of the Finnish Ministry of Education the main objective of the upper secondary experiment (from now on experiment) is to open up hitherto relatively strong barriers between the senior secondary and vocational institutions of the educational system, and to thereby offer more freedom of choice to the students. To put it into a short formula:

The main objective of the experiment is to increase individual flexibility by flexibilizing the educational system in all areas of upper senior education.

To the initiators and insiders of the experiment this may appear as a very crude characterization of the reform objectives. However, in all discussions that I had as an evaluator with teachers and members of the Executive Committees, with representatives of the Ministry of Education and the project management, the aim for increasing the individual and institutional flex-

ibility was the main issue of argumentation. 'Flexibility' was the word most frequently used by the above mentioned conversation partners. But what does 'flexibility' actually mean? How does flexibility manifest itself within the relation between teacher and student? What institutional aspects are relevant for the realization of the experiment?

As for the students, in most cases flexibility is conceived in relation to the expectations of having more individual freedom of choice. At first sight, this sounds very abstract. And when you discuss more closely with the young people who participate in the experiment, it soon becomes clear that everybody has his own perception of how to concretize his freedom of choice. Regardless of the individual preferences, it was remarkable and astonishing for me to realize how highly individual freedom of choice was valued by many students.

One explanation of this phenomenon could be, that by reaching upper secondary education students have spent nine years in the undifferentiated comprehensive school. If I understand correctly, children have only a few choices at their disposal in the Finnish comprehensive school. The need for individual freedom might be explained by this situation. Apart from that, young people are, when they leave the comprehensive school and enter upper secondary education at an age of 16/17 years, almost young adults. At least they want to be it, and

society in fact encourages them in it. Freedom of choice gives them a feeling of finally being able to take over a share of responsibility for their own educational and occupational career. More freedom of choice - That's what I like. It makes me feel more adult. That is how a female student put it during a classroom discussion, and the other students agreed strongly with her. Most of the students with whom I had the opportunity to speak, were of the opinion that the increased possibilities of choice offered by the experiment was an increase in quality of life, even if it meant higher strain and risks. I have to point out, however, that I cannot make a statement on, whether at all, and in relation to what features, those young people who were interviewed by me, were representative for the student population of the upper secondary education in Finland in general. From a formal point of view this can obviously be disputed. The majority of the people I spoke with took actively part in the experiment in some form or other, and that represents by far the very minority of all upper secondary students, according to the statistics available to me. It is possibly the particularly active and already flexible students, who participate in the experiment, and for that reason know to value freedom of choice especially highly. It occurred to me, that particularly young women, and in this context especially the female students of senior secondary schools, valued freedom of choice with high preference, and they often

even complained that the possibilities of choice offered within the experiment were still far too few. In contrast to this, a clearly more conservative attitude could be noticed among the young men, particularly in the technical area, like among the mechanics. Naturally, they too were of the opinion that it would be nice to have more individual freedom. But obviously they were not able to take much advantage of the possibilities offered by the experiment. One of the young mechanics said to me: Why should I visit the senior secondary school? I don't know anybody there, and I'm not interested in studying anyway... It would be better if we could learn more for our occupation here in our own school.

As these statements show, flexibility and freedom of choice are not observed and valued by all young people in the same way. If you analyze the statements of the students in relation to their objectives and motives, you can find varying user profiles.

3.2 Students of Vocational Institutions Participating in Courses in the Senior Secondary Schools

Seen from the perspective of the educational system in the Federal Republic of Germany, I was very astonished that the number of students of vocational institutions participating in courses at senior secondary schools was relatively small. At least, this is

the case in comparison to the group of students, who participate in courses at other vocational institutions.

The motives of vocational students to participate in courses in senior secondary schools are very varying. I was struck by the difference between those students on one hand, who by visiting the senior secondary school aim at the matriculation examination, and thereby increase their options for studies and occupational life, and those on the other hand, who make their choices just for fun and out of interest in the subject as such, regardless of achieving certificates concerning these subjects. I spoke with students of the first-mentioned category in a senior secondary school class, that consisted entirely of students from vocational institutions. They had lessons in Swedish in order to prepare for the matriculation examination. However, most of the students were still uncertain on what to do after finishing school. On my question, why they took on the burden of dual qualification, on student replied, It cannot be bad. Maybe I can make use of it also professionally. As it appears to me, this seemed to the opinion also of most of the other students. By participating in senior secondary courses they expect to broaden their options for an uncertain future. Only two female students said clearly that they aimed at academic studies. In general the learning atmosphere seemed rather depressed. The form was very large (approximately forty students), and the teaching was conducted as frontal

teaching. The students were according to my observations, adapted to this form of teaching, and they were obviously contented with working as efficiently as possible in the short time they had at their disposal. Do you like it here? I asked a young male student. "It s OK", he said, "a lot of work, but I get by. The main thing is to get through the course". This answer is typical for those young people, who mainly do not expect any personal educational enrichment from the senior secondary school, but who instead in the experiment see an opportunity to broaden their options and to later on improve their professional possibilities. In any case the additional courses offered at the senior secondary school represent a strategically calculable gain, which they would not have had without the experiment.

Not all students of vocational institutions, who attend courses at senior secondary schools, do this in order to acquire an additional exam. I was amazed by the fact that students of vocational institutions were not few, who chose courses at senior secondary schools, just for the sake that it was fun and because they wanted to do something, what was not necessarily related to their vocational education (contrast program). During my visit to a commercial institute I had the opportunity to discuss this issue in depth. The people I talked with were mainly young women. The majority of them expressed their enthusiasm over the experiment offering them opportunities for new learning experiences. The

field of chosen courses reached from the compulsory language courses at the traditional senior secondary school all the way to courses in astronomy and meteorology at the university, or to a course at the local conservatory. In the Federal Republic of Germany this would be unthinkable. In Germany, too, vocational education contains so-called general education (like e.g. in politics, German language, and religion) in addition to the professionally qualifying subjects, but these lessons are compulsory for all students. There are no options for choices. My own findings in this area have shown, that most of the vocational students do not approve of this kind of teaching general education. The experiment in Finland appears to me in this relation to offer students in vocational institutions better alternatives. It is not possible to command education by compulsion. As young adults the vocational students want to decide for themselves, what they want to learn outside the vocational curriculum. The possibility alone to make such decisions is an important educational objective for them, and an important experience in their personal process of growing up.

Attending courses in the senior secondary school has in addition to the afore mentioned a social-communicative function. Particularly the young women stress that it is very important for them to meet other people and to get new contacts outside the old circle of friends. However, especially in this area there were considerable differen-

ces in attitude. For some people visiting courses at a senior secondary school means an attractive enrichment of social contacts, for others the senior secondary school is a rather strange and frightening environment. The latter avoid participating in courses at a senior secondary school and prefer the lessons in their own school. Here we know the teachers. Why should I go to the senior secondary school? I can learn languages also here in our own school. Or: I went to the senior secondary school. There they look down on us coming from a vocational school. They are much too arrogant for me. One further student-statement: We are informed much too late or not at all about the courses at the senior secondary schools. Maybe they don't want to have us at all.

These statements clearly show that the motives for choosing courses at a senior secondary school do not only depend on the quality of the contents of the available courses, but also on the way the provision is made transparent, as well as on the way social contacts are formed. Teachers and students of senior secondary schools and vocational institutions have yet rather little experience in mutual exchange of activities. That is why it would be important in future to pay at least the same amount of attention to the human relation aspects of the experiment, as to the aspects concerning the contents of teaching.

Finally, also those students of vocational institutions should be men-

tioned, who are not visiting a senior secondary school only on a just for fun-basis or to acquire certificates for passing the matriculation examination, but who rather see a professional enrichment in attending courses at senior secondary schools. I must admit, that I did not meet many students of this category. However, seen from the perspective of integrated learning they could have a certain prototype function for the future development of the experiment. A convincing example for me were a male and a female student, whom I met at the course for Visual arts -Motion - Music at a senior secondary school in Hämeenlinna. The course was held by two female teachers for arts and sports as a team-work. The students learned through practical exercises, how to transform music into movement, and how to transform these movements again into graphics. According to my observations, the students enjoyed these transformation exercises very much, and they were very committed to what they were doing. For the male student connecting music, dance and drawing was an enrichment for his social pedagogical education at an institution for social service. The female student I talked with came from the Wetterhoff Institute, where she attended courses in handicraft. The course at the senior secondary school matched her artistic disposition, and she also hoped to receive incentives for her future professional activities. The upper secondary experiment provided both students with opportunities to expe-

periment a little with oneself, to gain new incentives and to enrich their professional perspectives. For these two students integrated learning was not an abstract or formal goal, but instead meant for them a substantial quality. The upper secondary experiment provides the framework to make such desirable learning processes possible and to support them, and also to offer the necessary pedagogical resources to students in different schools. Even if these at this early stage only are single cases, and an evaluator is, after all, only able to report on single cases, they deserve to be emphasized in the evaluation report, in order to make clear, what (and possibly not yet well enough used) learning possibilities the experiment makes possible.

3.3

Students of Vocational Institutions Participating in Courses in Other Vocational Institutions

The proportion of students in vocational institutions attending courses at other vocational institutions is relatively high compared with other student groups in the experiment. What are the reasons that cause students of vocational institutions to look at other vocational schools and to attend courses in these institutions? The motive of acquiring dual qualification certifications for studies and profession is not relevant for this group. The majority of the young people I talked with said the reason

being contrast program, meaning they want to do something different compared to those subjects the own vocational education is focussing on. In a group discussion that I conducted in Joensuu, a female student of a commercial college told me quite frankly: I just want to take a break, do something what is practical and makes fun. That is an honest answer, and from a pedagogical stand-point absolutely acceptable. Learning should also be fun, and in the end this has a favourable influence on the own education as well, one female teacher explained to me. The fact, that the students have more flexible freedom, would counteract overall school fatigue; the students would discuss more about their learning programs, they would compare the institutions and teachers, in other words: they would participate more actively in school life. As an evaluator it is not possible for me of course to verify this statement in detail. What caught my attention, however, and what to me does not at all seem self-evident, was the seriousness, the commitment, and the openness, with which the students discussed the experiences they had made and the problems of the experiment. I know from my own experience, that it is not possible to create such an atmosphere artificially in a group discussion.

The contrast program -motive becomes clear by the fact, that many students, especially the young women in the commercial institutes, prefer to choose to attend courses at other vo-

cational institutions, that have a high past time value, especially: hair care, cosmetics, pottery, cooking, nutrition and health care. On the whole there were complaints, that there were still too few courses offered in these fields, and that the courses were overcrowded. During the group discussions and single interviews I conducted, I met only very few students, who had the intention to deepen or broaden their vocational education, or to even acquire dual qualification within their professional education by attending courses of their own free choice at other vocational institutions. Those few students, who declared this as their motive, were young men, who were particularly interested in computers. Their personal interest in the new technologies was of particular importance. They were indeed able to convincingly explain, that their participation in a computer-course at an other institution, specialized in this field, would have professional importance for them. They realized that computer-courses were available also at their own school, but the hardware and provision of computer-related education was inferior compared with the specialized institute. This argument shows, that the experiment indeed also has a financial dimension. Not every institution has the financial and personal resources to acquire the newest computers and software, for which possibly only a handful of students show interest. Often this is not even necessary. The experiment provides the framework for making

the best possible use of the available resources to the benefit of local education, by combining specialization and cooperation. However, and there are still great problems to be overcome in this area, it appears necessary to create some form of financial compensation, possibly in the shape of a local funds-equalization, in order to motivate the various individual institutions to put their equipment and personal resources at the disposal of students of other institutions to a greater extent than before.

I was particularly interested in, whether or not there was any transfer between the commercial and the technical institutions. According to my experiences in the Federal Republic of Germany, the economic and commercial qualification gain more and more importance for the handicraft professions. It should be conceivable, that students in technical professions would attend courses in commercial institutions - and vice versa. This I did not find, however, with any of the young people I spoke with. Especially the students attending technical education appear as yet to show rather little interest to participate in the experiment in an active way. During my group discussions with mechanics and students of electro-technic professions, I discovered that most of the people I spoke with did not know very much what to do about the experiment. They did not have anything against the experiment as such, but they were not able to imagine what sense it would make to them to attend

courses at other vocational institutions. What's the point? I was asked by one of the young men. Here we have our work and our teachers. Elsewhere it surely cannot be better. And besides, we have just got started here. Whether it really is better somewhere else or not, was only an assumption. None of the people I spoke with had ever seen another vocational institution from inside, and almost nobody had any specific information on the experiment and the courses provided by other schools. How should this obvious disinterest be explained? The interview quotation therefore refers to a possible reason, which should be observed when further developing and improving the experiment: students, who after finishing comprehensive school take vocational education, find it definitively more difficult than students in senior secondary schools to find their way and settle down within their new educational environment. The transition from the comprehensive school to the senior secondary school occurs within the settings of more or less familiar learning structures. The students in the vocational-technical areas on the other hand have to familiarize themselves with new ways of instruction and learning in the workshop. They are partly still very insecure regarding what they are going to encounter, and they tend to stabilize themselves socially within their learning group. I anticipate, that it is asking too much of them at this stage in their education, to inform themselves of courses pro-

vided by other vocational institutions, or even to be bold enough to participate in courses in other schools. It would be important to provide the students with relevant information on the experiment, and to provide pedagogical supervision for the transition between schools.

3.4 Students of Senior Secondary Schools Participating in Courses in Other Senior Secondary Schools

The proportion of students in senior secondary schools, who attend courses in other senior secondary schools is comparatively low. What are the reasons for senior secondary school students to attend courses at other senior secondary schools? According to statements made by the students I discussed with, their interest in the contents of the courses was the decisive factor. Within the scope of the experiment the senior secondary school students have the possibility to choose from a much broader palette of courses, than it possible for the senior secondary school to provide. That goes for example for foreign languages, but also for courses, that are not part of the matric subjects, like for example arts and sports. This depends on specialities within the regional provision of courses, in the latter case on the fact, that the Joensuu Yhteiskoulun Lukio specializes in several sport events, which are very popular, and which are not available

in other senior secondary schools. I mention this example because it makes clear, that the experiment increases the variation flexibility for the choice of courses between the senior secondary schools, and could contribute to making optimal use of the resources, provided school-owners manage to work together and to agree on fair financial equalisation. The individual senior secondary schools would then be in a position to develop particularly qualified instruction profiles, without jeopardizing the students option of choice, as the students do have the possibility to attend courses at other senior secondary schools. This would be a considerable advantage compared to the equivalent upper secondary schools in the Federal Republic of Germany. The study program at the upper secondary schools in Germany allows the students to choose main subjects and optional courses freely within a limited framework. However, the freedom of choice is often limited for the reason, that the individual upper secondary schools (are able to) offer only a limited number of the subjects permitted for the matriculation examination, and that the students of upper secondary schools in Germany do not have the possibility as their Finnish counterparts to take classes at other upper secondary schools. From this stand-point, as an evaluator, I have to recommend that it should be examined within the experiment, in which ways the collaboration between senior secondary schools could be improved, and how the provision of

courses to students of other senior secondary schools could be made more diversified and attractive. In the scope of collaboration and exchange of courses between the senior secondary schools, it is important to develop and test new contents and subject-overlapping forms of instruction, like for example forming projects into teamwork. The experiment offers a suitable framework for this objective. But flexibility alone is not enough for modernizing the senior secondary school; the framework has also to be filled qualitatively by the means of pedagogical innovations, if it is to be more appealing to a greater number of senior secondary students than until now.

3.5 Students of Senior Secondary Schools Participating in Courses in Vocational and Institutions Other than Senior Secondary Schools

More than half of all the courses offered outside participants in the regions of Joensuu and Hämeenlinna within the scope of the experiment are courses at vocational institutions and the conservatory (Joensuu), that are visited by students of senior secondary schools. This development can actually be greeted as a virtually desirable development. As a comparatively high proportion of the 16 to 19 years old youngsters in Finland visit the senior secondary school, and as a relatively low proportion of the gra-

duates continue academic studies immediately after the matriculation examination, it is meaningful, that as many senior secondary students as possible orientate themselves in relation to their possible future occupation and make contacts to vocational institutions.

Also in this group, you can differentiate between students on one hand, to whom mainly hobby-interests, the leisure-value of the subjects or also the relaxation from the learning in senior secondary schools are crucial for the choice of courses, and those students on the other hand, who want to achieve additional qualifications or experiences for their future choice of profession by taking classes at vocational institutions. It is to be understood, however, that it cannot be estimated on the basis of the conversations and interviews conducted by the evaluators, how typical these differences regarding motives and objectives of the participants actually are. In general I had the impression, that most of the students had a responsible attitude towards their new freedom of choice. In most cases there are also good and pedagogically acceptable arguments for the choice of hobby-courses. Following student-statements, which I made notes of during interviews, are typical: I do hairdressing. That has nothing to do with my classes at the senior secondary school, and I don't have the intention to do it later on professionally. But it is relaxing. That way I can concentrate much better on my subjects

for the matriculation examination. Or: I attend a pottery-course at the vocational institution. That is real fun. It makes me realize that I don't only have a head, but also a pair of hands. And one last statement made by a male senior secondary student: I have chosen a course at the business college. Why? Well, I want to earn to earn much money in future, and I want to know it is done. The last statement sounds rather witty, but it nevertheless contains a serious point. When asked for his professional wishes, he said that he did not have any fixed plans as yet. He wanted to look around a little in the courses he had chosen at the business college, in order to find out if a commercial education appealed to him at all. And if it didn't, he could surely make use of the things he had learnt in his private life. Also other people taking part in the conversations expressed to me, that they felt it to be important to experiment a little with themselves by visiting vocational institutions, in order to find out, what they could and would like to do after the matriculation examination.

When choosing courses, the conservatory plays a special role for the students of the senior secondary schools in Joensuu. The majority of my conversation partners in the conservatory were students from senior secondary schools, whose hobby was music, and who wanted practice music more intensively, than was normally possible. The conservatory has therefore in this context an obvious quantitative and qualitative function

in the area of music education for the senior secondary students in Joensuu. But not only that. Quite a few of the senior secondary students visit the conservatory in order to find, if they have enough talent for a professional education. A female senior secondary student put it this way: I would love to study music, but I don't know if I'm gifted enough for it. I spend almost 12 hours a week at the conservatory. And if I'm good, I'll study music. Then I have good use of all what I have learnt here. In any case, I intend pass my matriculation examination within the framework of the experiment, so that I can study something else, in case I won't be able to study music.

Teachers at the conservatory told me that there were quite a few students from the senior secondary schools, who had this attitude. They are highly motivated, and represent also a contribution for the conservatory. The experiment makes it possible for these students to start their musical studies already at the age of 16/17 years, without the risk of dropping out from their studies at the senior secondary school. From my point of view, this is a convincing example for the possibility to promote specially gifted young people within the experiment already at a comparatively early stage, without running the risk of committing themselves one-sidedly to an artistic career, which may later prove to be a blind alley.

4

Organizational Problems and Deficiencies in the Context of Developing the Contents of the Experiment

The upper secondary experiment in Finland reacts on a number of structural problems, as they can be found in all developed industrial societies in relation to the development in the areas of economy, technology and qualification. The aim is to achieve decentralized and comparatively open teaching-learning-arrangements as a presumption for the flexible planning and devising of educational pathways that qualify for academic studies and professional occupations, with a high degree of individually selectable and combinable curricular building stones. Viewed from this perspective, the Finnish upper secondary experiment can in a certain way be seen as an outsider for the general trend towards more decentralization and flexibility. Organizational problems and conflicts concerning objectives cannot be avoided in this context. The following remark should not be understood as criticizing the way the experiment was conducted in Hämeenlinna and Joensuu. My comments are meant to be constructive. For the reasons of the confidence of my conversation partners I will not go into further details; I will focus on the following three areas of problems:

4.1

Too Much Bureaucratic Administration and Too Little Relief through Efficient Organization

What are the most frequently criticized problems of the experiment from the perspective of the pupils and students, the teachers, and counsellors? The students complain especially about the coordination problems between the participating educational institutions and insufficient transparency of the overall provision, about lack of counselling in their own school, and about contact difficulties with other senior secondary schools and vocational institutions. The points most frequently criticized by teachers and counsellors were: increasing administrative work, complications with planning of the courses, time-bottle-neck and content-related deficiencies related to the preparation for the centrally controlled matriculation examinations, but also personal drawbacks in relation to payment as a result of diminishing provision of courses in the non-appealing subjects. The teachers and counsellors I discussed with, had generally the impression, that the administrative provisions for carrying out the experiment had not been sufficiently cleared, and that the problems resulting from that were pushed over onto the teacher, counsellors, and in the end, not to forget, onto the students. Criticism regarding organiza-

tional deficiencies on one hand, and complaints about the accumulation of organizational burdens on the other hand, are no contradiction as such, but rather an expression of self-organized coordination between the instances participating in the experiment.

Every experiment means extra work, organizational transition-problems, as well as risks. Otherwise it would not be an experiment. Most of the people I talked with emphasized, that they indeed were ready to commit themselves to the experiment, and that they also were ready to invest an extra amount of work into it. Their criticism regarding organizational and other deficiencies in connection with the practical side of the experiment, was aimed at the hampering of their pedagogical work due to insufficient or administratively not supported framework conditions.

According to my experience, it is possible to conduct such a complex experiment as the upper secondary experiment in Finland effectively and successfully only, if the directly involved teachers, educators and counsellors have as much freedom of action as possible for self-organized projects and activities. Self-organization, however, provides that the central and local supervising instances create the necessary freedom, and on the other hand provide an administrative infrastructure, through which the pedagogical staff is relieved. One example: The coordination of the courses available to the students, individual

arrangement between the teachers or the information for the pupils and students by the means of local computer networks should be self-evident. Flexibilization of the local educational systems and self-organized team-work cannot function without efficient organizational development. To put it in a paradox way: The experiment absorbs according to my observations too much work and attention for organizational details, because too little attention was directed at the organizational development. Until now there seems to be a lack of convincing organizational concepts.

4.2

Flexibility - for What Reason? - Domination of Traditional Education and Teaching Concepts and Deficiencies in the Context of the Innovative Development of the Experiment

Efficient organizations are an essential provision for the success of pedagogical reforms. Nonetheless, they are not an end in itself. The efforts of pedagogical experiments can only be justified, if better yields concerning the education of the pupils and students can be expected. In the long run the upper secondary experiment will be successful only, if the freedoms it makes possible are complemented by new contents and forms of teaching and learning. Of this, not much could yet be seen by the outside observer. It is understandable, that in view of the

above mentioned organizational problems only very limited personal, material and time resources were available for innovative projects, in the initial stage of the experiment (since 1992). As with all demanding experiments, nothing else could be expected. The fact that there seemed to be almost no discussions concerning new objectives, contents and forms of the upper secondary education, seemed somewhat questionable. Everyday teaching and instructing in the participating schools appeared almost not at all to differ from the everyday life that can be seen in schools outside the experiment in other regions and countries. It is true, that the students participating in the experiment formally enjoy comparatively wide freedoms of choice, but the instruction provided for them to choose from is governed by traditional contents and forms. Project- and team-work or other forms of active teaching and learning I saw during my visits to the schools were actually exceptions, and even then followed the pattern of conventional school work.

I don't want to be misunderstood: Everyplace, where I had the opportunity to attend class or visit workshops, I found on average good conditions; this goes for the level of the teaching as well as for the social climate between the teaching and the learning, and last but not least, also for the technical equipment. What I missed, however, was the attempt to utilize the experiment and its broadened possibilities of collaboration to test

new instructional contents and methods. By this I mean especially the integration of general and vocational education and the testing of educational pathways leading to dual qualification, as laid down in the objectives of the experiments. Characteristic for the Finnish educational system, and maybe even to a higher degree than in many other European countries, is until today the institutional separation between senior secondary schools and vocational institutions, and accordingly a noticeable differentiation between educational pathways qualifying either for vocational professions or academic studies. Integrated learning in the sense of creating mutual relations between scientific knowledge and vocational practices takes place in the courses at the vocational institutions, but it is not used consequently within collaboration between senior secondary schools and colleges and rewarded as a special achievement for acquiring matric graduations. Students attending combination courses at senior secondary schools and vocational institutions are confronted with two different cultures of knowledge. The combined pathways are according to my observations always additive form of dual qualification. During my stay in Hämeenlinna and Joensuu I did not encounter integrated courses under the cooperative supervision of teachers from senior secondary schools and vocational institutions. It is possible that they do exist, but obviously they do not take any important position.

The experiment offers good opportunities to combine general and vocational education in the shape of integrated courses stronger, as is possible in the traditional educational system. Integration takes place not only in the sense, that students of senior secondary schools attend courses at vocational institutions and vice versa. Didactic concepts for the development of integrated curricula are called for, and it would be desirable in that context to have practical collaboration between the staff of the senior secondary and the vocational institutions. Based on the experiences I have gained in Germany, I can confirm this to be both a long term and a sometimes conflicting process. The secret predispositions between senior secondary schools and vocational institutions cannot be discarded in an abstract way, but only through continuous practical collaboration, and the readiness of all involved persons to learn from each other. More than until now, mutual projects, continuation seminars, and supervisory contacts should be established between teachers at senior secondary schools and vocational institutions. Furthermore, and stronger than before, visions of mutual objectives and didactic concepts for the pedagogical and contents-related development of the experiment should be devised and put into practice. Flexibility and permissiveness are necessary provisions for integrated learning. But these alone do not provide an improvement to the quality of

education. The experiment should bring more courage for pedagogical reform, and not limit itself to present old tricks in new costumes. This goes especially for the following aspect:

4.3 Open Learning Situations in the Pedagogical Province - Lack of Vocational Experience

Integrated learning does naturally not limit itself only to combine science-and profession-propedeutic theories, complemented by the education provided at school-workshops. Seen from the perspective of the German vocational education system, I noticed that vocational training on the job virtually did not exist. It is known that the vocational education of young people in Germany takes place in the so-called dual system. Learning by working has a long established tradition in Germany. This does not mean entirely good experiences, however. Compared with the demand, there has until today always been a shortage of good training jobs, and it has taken a long time to convince the private companies, that it is in their own interest to educate and train young people according to qualified standards on the basis of national education regulations. In addition to the dual system in the Federal Republic of Germany, there are lively activities in almost all the countries of the OECD and European Union to integrate training on the job into the

education, and to try out various forms of alternating learning according to the regional provisions. There is a good reason for that. Alternating learning in training companies and vocational schools has, despite all the criticism regarding details, the great advantage, that the young people being involved in the education, are confronted with real life situations, and have thereby have the opportunity to compare theory and real life, and to make use of the qualifications they have acquired in actual professional situations.

The upper secondary experiment in Finland is devised as an open system. However, the openness seems according to my observations often stop at the gates of the educational institutions. During my evaluation activities I did not find any contacts to on-the-job-related training. I heard, however, from my conversation partners, that here and there first steps towards closer collaboration between vocational institutions and companies do exist. But they are not the rule, and no explicit factor within the objectives of the experiment. It would be utmost important, not only for the students of vocational institutions, but above all for the senior secondary students, to attend combined courses in combination with practical training on the job. In this way also such courses could gain popularity, that earlier received little or no notice when the students selected their courses freely. Anyway, everything should be attempted to avoid the hitherto do-

minating concentration on vocational hobby-courses, and to develop real, professionally qualifying alternatives. The selection behaviour of the students is not only, but nevertheless to a great extent, also a question of provision of courses.

5. **Summary and Recommendations**

As already mentioned, in the OECD countries there is a consensus that the dynamic developments of the present-day world presuppose thoroughgoing reforms of traditional educational systems. Especially the sharp distinction between general and vocational education will become increasingly obsolete. As documented by the OECD reports presented at the VOTEC seminar, in most of the countries there are experiments that aim at opening and integrating the educational systems. The upper secondary experiment in Finland must be seen and evaluated in this context. In other words, quite irrespective of how successful the participating schools and institutes are in individual cases, in the long term there are no meaningful alternatives to opening the institutional education practices and to promoting increasingly integrated learning on the basis of academically and vocationally oriented curricula. I emphasize this aspect because in the Finnish discussion (as far as I have been able to follow it) many have

argued against the upper secondary experiment on the premise that the school system which has proven to be functional in the past would continue to be effective in the future without major reform measures. To my mind this structurally conservative viewpoint can only be maintained at the risk of subjecting new generations to many harmful consequences.

When there are no viable alternatives to reforming the educational system, one is faced with the question of the reform philosophy and the measures to realize this philosophy. At the beginning of the 1970's the German Education Committee introduced plans for a curricular and institutional integration of the upper level of higher secondary school and vocational institutes. The plans were intensively discussed, but only one state - Nordrhein-Westfalen - carried out an integrative experiment. This college experiment has been going on for 20 years now. As an evaluator of it, I am forced to say that the set goals were not reached. This is especially true of the attempt to dissolve the traditional forms of education and to transform them into a system of integrated higher secondary schools (Jugendschule).

In contrast to the rather discouraging experiences of the college experiment in Nordrhein-Westfalen I regard the upper secondary experiment in Finland as a highly constructive compromise between structurally conservative orientation, aiming at maintaining the traditional edu-

cational system, and radical structural change. The great advantage of the Finnish experiment lies in the fact that the distinctive character and variety of existing educational institutions, together with their expertise and educational profile, are not jeopardised. The experiment is set within, not against, these structures. Not only does this avoid difficult confrontations over educational policy on the regional level and in school collegiums, it also limits the risks of planning mistakes and increases the comprehensibility of the consequences of individual educational decisions. There are winners especially among those students who - or whatever reasons - have learned to creatively use the means and opportunities provided by school. There are also non-winners, but actually no losers in the sense of problem groups that the experiment would have created.

In my report I have attempted to shortly describe the winners. Except in the case of specific individual problems, almost all of the students I discussed with thought that the greater freedom in the choice of courses and in the construction of individual curricula produces personal enrichment. The students feel themselves more independent and mature, and feel that they must more actively than before look after their own interests and the concerns of their schools. Participation in the learning programmes of other schools and institutes inspires comparisons and provides impulses to criticism and discussion. From a pe-

dagogical perspective, these learning experiences cannot be valued too highly. Furthermore, the different target groups derive specific benefits: students in senior secondary schools benefit from the opportunity to gain their first occupational experiences and to be confronted with their own occupational perspectives. Students of vocational institutes can choose academically qualifying courses, complement or sharpen their occupational profiles, and extend their general education in view of life spheres outside school. I have given a few examples of such students in my report.

It occurs to the foreign observer that networks of collegial cooperation are developing between the schools in the experiment regions. These do not have to revolve around spectacular projects. The experiment has evidently produced a variety of impulses for looking outside one's own school and establishing contacts with other institutions. It is easy to understand that this is not a matter of course, considering the everyday burdens and responsibilities of schools. The educational institutions have made a determined effort to reflect on, discuss and commit themselves to the future development of their regional systems of education.

To me these developments still appear quite unstable. This is, however, all that could be expected because the experiment has only been going on for a short time. One must, however, ask what aspects of the experiment should

be accentuated in order to increase its stability and allow it to realize its genuine reform potential. Three aspects seem to me to be particularly important:

* The central political and administrative conditions for the realization of the experiment must be clear and dependable for all participants. This is especially true of the final report and of the so-called combination examination. Nobody could tell me exactly what the formal status of the combination examination is. I detected similar uncertainty among teachers and students. It seems to me that, from the viewpoint of educational policy, the experiment is riddled with unresolved controversies. It is important that binding decisions on these matters are made for the duration of the remaining experimental period and that these decisions are respected also by the critics of the experiment. For the sake of the participating students and teachers, the experiment should be given a fair chance to succeed.

* The experiment should not be restricted to such formal goals as flexibility and cooperation. Increased flexibility and stable cooperative relations can be expected only if new perspectives and goals are developed, and attractive learning opportunities offered. It is through these that the experiment can achieve substantive reform potential. Often I had the impression that the senior secondary schools (lukio) and the vocational

schools followed the strategy expressed in the German proverb 'Wash my fur, but don't make me wet'. Especially striking was the restraint of traditional senior secondary schools. They are evidently afraid that participating in the experiment with new learning contents would not do justice to their responsibilities connected with preparation for the matriculation examination. However, traditional educational conceptions dominate in vocationally oriented institutions, too. Under these circumstances it should not come as a surprise that many senior secondary students and students of vocational schools do not feel motivated to take classes outside their own school. From their viewpoint there is a lack of convincing goals, information, transparence, and - last but not least - attractive educational alternatives. In their subjective cost-benefit analyses, individual students more often than not come to the conclusion that the endeavour would not be worth while.

* The development of new educational alternatives, especially in the area of integrated learning and teaching, cannot be achieved without sacrifices. In my opinion the upper secondary experiment will be successful only if the engagement of active teachers is rewarded (for example, through partial exemption from teaching, thereby permitting participation in innovative projects), and the costs of the provision and utilization of external courses are divided fairly. In the long run it is not to be

expected that individual schools and institutions will make the effort to establish an attractive repertoire of courses for external pupils or students unless the costs and benefits are tendentiously balanced. Already now there are grave imbalances between the supply and demand of courses. This will not change in the future. As I point out in my report, the course preferences concentrate in specific subjects and occupational fields. One reason why the demand of student places cannot be met is the fact that the course-providing schools and in-

stitutes have, out of economic and resource considerations, introduced a kind of numerus clausus. There is evidence to suggest that the privileged course-providers cream a selection out of the course-seekers, thereby producing new inequality. Whether and in what measure the experiment can turn into a pedagogically substantive reform depends, it can be assumed, crucially on the financial equality between the carriers of the experiment in the participating schools and institutes.

