



Directorate for Education

Centre for Educational Research and Innovation (CERI), OECD

## Innovative Learning Environments (ILE)

### INVENTORY CASE STUDY

#### **Breidablikk Lower Secondary School, Sandefjord - Interest-based pedagogy**

Norway

*A lower secondary school in which students (age 12-16) choose among several learning “paths” that use different instructional methods to teach the regular curriculum, with a focus on, for example, nature and outdoor, media, or music. The school year is divided into six-week periods that focus on a certain topic taught through different angles. Each period also comprises one week in which the students work intensively on their own interests, following an individual learning plan the students make together with a teacher. There is a special trajectory for students with maladjustments or drop out problems, who are taught in small groups. Activities for these students include work on a farm to enhance their motivation and improve their social behaviour, punctuality, etc. The school has several innovative projects like a yearly school musical with up to 150 students and a building project in which groups of students design their own houses in cooperation with professionals from the business world. Learning spaces are large and flexible, and include outdoor areas that were in part constructed by students and teachers. Student groupings are flexible depending on the paths that the students choose.*

This Innovative Learning Environment case study has been prepared specifically for the OECD/ILE project. Research has been undertaken by Øyvind Sæther and Svein Andersen from the BI Norwegian business school together with Lone Lønne Christiansen from the Norwegian Directorate for Education and Training , following the research guidelines of the ILE project.

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### Innovative Learning Environments (ILE) Project

#### Inventory case study: Interest-based pedagogy at Breidablikk Lower Secondary School, municipality of Sandefjord in Norway

Breidablikk is a lower secondary school in which students (age 12-16) choose among several learning “paths” that use different instructional methods to teach the regular curriculum, with a focus on, for example, nature and outdoor, media, or music. Throughout the school year the pupils are divided into groups of interest or paths. Every sixth week they go through a new period that focus on a certain topic taught through from different angles on the different paths. During this one week the students work intensively on their own interests, following an individual learning plan that the students make together with a teacher. There is a special trajectory for students with maladjustments or drop out problems, who are taught in small groups. Activities for these students include work on a farm to enhance their motivation and improve their social behavior, punctuality, etc. The school has several innovative projects like a yearly school musical with up to 150 students and a building project in which all students participate in groups, and where groups of students design their own houses in cooperation with professionals from the business world. Learning spaces are large and flexible, and include outdoor areas that were in part constructed by students and teachers. Student groupings are flexible depending on the paths that the students choose.

**Main Focus of Innovation:** LEARNERS, TEACHERS, CONTENT, RESOURCES, ORGANIZATION

**Other Keywords:** learning space, innovation process



#### A. Aims, nature and history of the ILE

##### A.1 Background/National context

Education for all is a basic precept of Norwegian educational policy. Children and young people must have an equal right to education, regardless of where they live, gender, social and cultural background or any special needs. All public education in Norway is free of charge, while kindergartens have parental fees.

The Norwegian Parliament (the Storting) and the Government define the goals and decide the framework for the education sector. National standards are ensured through legislation, regulations, curricula and framework plans. The municipalities are responsible for operating and administering primary and lower secondary schools, whereas the county authorities are responsible for upper secondary education and training.

Legislation and regulations, including the National Curriculum, form a binding framework, but within this framework the municipal and county authorities, schools and teachers can influence the implementation of the education and training. Each school has a head teacher and various boards, councils and committees.

In the autumn of 2006 the school reform called *The Knowledge Promotion*, was introduced. The objectives and quality framework for primary and secondary education and training are laid down in *The National Curriculum for the Knowledge Promotion* which applies to all levels of primary and secondary education and training and comprises:

- The Core Curriculum
- Quality Framework
- Subject Curricula
- Distribution of teaching hours per subject
- Individual Assessment



In the subject curricula the five basic skills are integrated in a way that is adapted to each subject. These skills are: Being able to read, being able to express oneself orally, being able to express oneself in writing, being able to develop numeracy and being able to use digital tools.

During the reform, new practices are developed in cooperation between local school owners (municipalities), school leaders, teachers, pupils and their parents. The case presented is an example of a local initiative that exploits opportunities in the spirit of this reform. The story about Breidablikk lower secondary school is a story about how pupils' interests become the basis for a new pedagogy.

## A.2 Breidablikk lower secondary school

Breidablikk lower secondary school was a very traditional school, with a proud history. The school celebrated their 50 year anniversary in 2011. Today it is among the 20 largest lower secondary schools in Norway, with more than 520 pupils. However, as other schools in the country it experienced serious challenges. The drop-out level in upper secondary schools in the area was increasing, pupils lacked motivation and energy. Measures of reading skills were on a downward trend. In 2005, the school owner Sandefjord municipality decided that something had to be done.

In the fall of 2006 the modernization and expansion of the school was completed. However, the new school was a school that the teachers did not want. It had been transformed from a traditional class room school, to a so-called base-school. The presentation of the new school in the local paper emphasized that there was not enough room for the teachers in the staff room during the formal initiation ceremony. Teachers were frustrated and said that they lacked the pedagogy required for this kind of school. The School owner's response was brief. It was simply assumed that this challenge would be met in an acceptable way. The ensuing period was characterized as chaotic, and within a relatively short time a number of teachers quit their job. Something had to be done.

### A.3 Initial ideas

One can read from the report written by a consulting firm PWC, from the project in 2009:

*"The story of Breidablikk lower secondary school's initiating and participating project role in the school reform program "The Knowledge promotion reform - from words to action" is a practice story about a school that uses a scientific and educational scope that goes beyond the traditional school practices. Breidablikk School has introduced a new lower secondary school model where the students' practical, aesthetic, musical and theoretical learning preferences are used systematically. Through this model, the school, among other things, has ambitions to strengthen students' reading comprehension."*

And in the schools own article on the project, a teacher is cited as follows: *"The whole thing started with an idea from a teacher of creating a more practical school by offering different study programs, that the pupils could choose between. That was a really practical idea and most of the staff got excited by it."*

These ideas of a new type of school broke through in an environment of chaos and dissatisfaction within the school staff. Their old, traditional and proud school through total renovation and new buildings had turned to be dissatisfactory for the old time pedagogy the teachers traditionally used. But as the quotations indicates, parallel to this chaos and dissatisfaction, there were some factors pointing the right way. The school got a new principal who, like some of the teachers, had a vision of a more practical lower secondary school. The new leader provided space for discussions about alternative pedagogy, and out of this some new initiatives emerged. These ideas became a first

common ground for discussions about how to deal with the new challenges. In a staff meeting, it was decided that Breidablikk should develop a school that was an alternative to a traditional and theory oriented school. Clearly, not all pupils were comfortable within the traditional school. In contrast, the alternative approach should be based on an appeal to pupils' interests, to improve their disciplinary as well as social development. This was the basis for a new practical pedagogical model. It implied differentiation of *how* pupils should learn, but not *what* they should learn. They should all fulfil the objectives of the national curriculum.

In addition to the traditional one, the pupils were given a choice between two other tracks. The three approaches were named after figures in Norse mythology, Frøy, Frigg and Odin, as both the school and the nearby environment has their names from the mythology as well. The *Frøy* track was the traditional lower secondary school. The *Frigg* track allowed pupils to choose between four areas of interest:

1. Environment and out-doors
2. Sport and life style
3. Music and culture
4. Media and craft

The *Odin* track offered an alternative school for pupils with special needs, alternating between theoretical and practical work. This track is located in a separate building at an ecological farm nearby.

An important point is that the pupils' choices of track are to be based on interests, rather than aptitude or skill levels. For this reason, the pupils' choices are not irreversible. They may reconsider their choices and change tracks. All tracks lead to the same lower secondary school exam as in the rest of Norway, and thus provide the same opportunities for further educational choices. In the following, we will call it the *FFO-reform*. (Frøy, Frigg and Odin) During many discussions, the school made their new vision based on their new ideas. The vision was: **“Together we shape values for the future, through knowledge and creativity”**.

The interest based choices of different tracks form the basis for an alternative pedagogy. However, the development of this new school model did not take place without a certain level of controversy. As general ideas matured, disagreements emerged within the staff, and they also created a fair amount of scepticism among county officials. The project model employed and reactions from local stake holders are the next topics.

#### **A.4 The implementation process – internal and external challenges**

The process leading to the new school model was a demanding project. Within it, the school leaders must create legitimacy and support for initial ideas, keep the ensuing project work on track, and ensure that they have translated them into practical methodology. At the same time new approaches had to be in line with formal requirements, and acceptable to county officials, school owner and parents.

Soon after the initial ideas were introduced and embraced, the first step in the implementation process was taken. An internal *working group* was created, with time, resources and top leader support, and with the possibility of contracting external professional support. The group of 6-7 persons was representative of a broad set of interests; they represented the whole staff, and also the teachers' association. The project developed fast, and the working group had good arrangements with the principal about time allocation and overtime compensation etc. However, it soon became clear that a minority within the group did not share the majority's view about how the project should proceed. There were intense discussions. The person with the initial ideas about an alternative model wanted the school to apply for exemption from general rules and regulations concerning the weight and objectives of different disciplines. Both the school leader and the majority of the working group were against this.

Parallel to the development of the new school model the school applied for and became part of the national school development project – *The knowledge promotion – from words to action*. In this context the local project focused on increased reading abilities as a key to improved learning. It was named EUREKA, and it was implemented in tandem with the FFO-reform. Initially, there was little discussion among the teachers about EUREKA, but when it came to the FFO-reform, they were divided into two camps, where the minority wanted the new alternative tracks to be exempted from the general rules and learning objectives.

Initially, the EUREKA project was supported by researchers from the local university college – HiVe, as was the demand for participation in the *Knowledge promotion – from words to action* program. At this stage changes in reading strategies did not trickle down to the class rooms. However, a new implementation group was created to implement theory into plans and practice. This also involved teachers. HiVe carried out some research on the reform, but the most important professional external support would eventually come from the consulting firm PwC.

On the other hand the FFO-reform was controversial at all levels. However, the school leader and the majority of the teachers wanted to try out the new organization, and were supported from the participation in the national *Knowledge*

*promotion – from words to action* program. One important lesson concerning the FFO-reform, was the relationship between the working group and the rest of the staff. Even if the group had a broad representation of interests, it soon developed to a within-group that separated from the rest of the school. For the others they became “an island in the ocean”. Despite continuous dialogue and discussions about what to do, and how to do it, it was difficult to achieve a uniform implementation. Some of the difficulties may reflect initial disagreements, but it is clear that more should have been done in making sure that everyone was on board and actively supporting the new model.

Today, in the light of thought, the new principal (at that time the inspector) says that the vision probably was too extensive and complex. It was communicated out to the environments and to their superior authorities.

However it may not have been well enough understood and agreed upon inside the school, and may not have reflected the totality of change, especially not the practical, motivation-driven tuition within the FFO-reform.

The new ideas and specific initiatives challenged established practices. Resistance developed, although the reform was in line with ideas that almost everyone had initially supported. Part of the reason for this was probably that the specification of ideas into concrete plans and practices did not always correspond to teachers’ own expectations. Although such challenges were openly addressed in proper forums, the negative “corridor talks” was, at times, a challenge. However, a core group of teachers, backed by the school leaders gradually managed to gain sufficient support, so that new practices could be implemented.

The school owner, the municipality, was very sceptical, and it took intense discussions before the reform projects was allowed to proceed. The argument against the reform was that dividing pupils according to interest somehow had to imply a division based on capabilities and ambitions. The latter would be against the law. For similar reasons the county officials were also sceptical. The response from the school was to show how all different tracks could fulfil requirements for high school education. The EUREKA project created less controversy, although relying on the same pedagogical approach. Improving reading skills was something that everyone could agree upon.

The school owner was an active supporter of the EUREKA project, but in relation to the FFO-reform such support was almost non-existent. The same goes for the county.

The initial reaction from parents was very sceptical as well. The first presentation for the parents just after the plans had been decided by the school was a tough trial for school representatives. More than 600 parents were present, and the debate was heated. However, the climate in the parent groups was soon very supportive and still is. The local Parents Working Committee and the student council both actively support the FFO-reform. This co-operation was very important in the first period, and still is. These organizations participate in regular meetings with school representatives.

The PWC report states in 2009, that: *“With its project organization in the FFO/EUREKA project Breidablikk school appears as a school with ambitions to work learning: The project is firmly rooted in the management and staff, the school interacts closely with the expertise and the project content has consequences for the entire organization. Breidablikk school’s approach ensures that the crucial meetings between tacit professional knowledge and more explicit knowledge embodied in the theoretical and empirical learning creates a good balance between continuity and renewal.”*

## **B. Structures patterns and Characteristics of the ILE**

### **B.1 From idea to an alternative model**

The new model should integrate one week of interest-based teaching six times during the school year, within the general national model. The overall objectives should remain the same for all tracks, according to national rules and regulations. The national curriculum governs local plan and learning objectives. All pupils have the same final exams. Main elements of the model are presented in figure 1.

The Norwegian Education act **Section 8-2.**  
*“Organization of pupils in groups:*

*The pupils may be divided into groups as necessary. The groups must not be larger than is justifiable in relation to pedagogy and security. The organization shall safeguard the pupils’ need for social belonging. Pupils shall not normally be organized according to level of ability, gender or ethnic affiliation.*

*Each pupil shall be attached to a teacher (contact teacher) with specific responsibility for the practical, administrative and social educational tasks concerning the pupil, including contact with the home.”*



Figure one: Differentiating pedagogic according to pupils' interests.

The pupils within the traditional track, *Frøy*, would learn within regular pedagogic. Here teachers could appeal to various interests, but not a particular one. For pupils within the second track, *Frigg*, the pedagogic would be adapted and more practical, based on choice between four fields of interest, (six times a year, and each time ca one week).

The *Odin* track is for a selected few that need special learning support.

In contrast to the traditional, more unitary school model, the new model poses special challenges with respect to shared culture and identity across different tracks. This is reflected in teachers' shared values. In relation to the pupils, two cross-cutting projects are of particular importance.

The first is a three year practical building project called *Building and living*. For this project the school has a formal partnership with 5 local firms. The other cross-cutting project is a *school musical* that involves as many as 150 pupils. This was initiated before the FFO-reform project, but in a way that had few links to the other activities in the school. Within the FFO-reform perspective, the musical has acquired new significance. As with the building project, the musical is developed with a closer link to other learning activities, as part of a practical pedagogic. In connection with this, the school has also created a drummer corps.

Taken together these two cross-cutting projects contribute to shared culture and identity within the whole school. In addition, partnership with local firms, and the musical performances also strengthen the bonds to the local community.

## B.2 Leading change at Breidablikk

### Systemic leadership

In the first interim evaluation of the national program *The knowledge promotion reform - from words to action*, it was highlighted by the researchers that schools over time improved their development capacity, but without necessarily getting approval for teaching practice (UDIR 2007). The management of the Breidablikk School had taken steps to avoid this superficial development, and in the first project year they managed to contribute to change of both development capacity and teaching practice in accordance with the agreed objectives. Through requirements and support, a well-anchored project and leaders showing the way, the project managed to bring up the good driving forces for the desired development. It does not mean that all project objectives were achieved, there still remain several organizational and educational challenges, but rather that the school management and the steering group managed to get control of a broad-based development process.

The PWC-report concluded that: *"If the management interaction in the project should be summarized in few points, it would be appropriate to highlight the following conditions:*

1. *The leadership shows the professional and educational direction of the school to develop towards*
2. *The leadership is working hard to improve teachers' expertise in systematic reading training and adapted training*
3. *The leadership delegates responsibility*
4. *The leadership is involved in the change processes, updates themselves and is continuously adjusting*

*A leader in a learning school must work purposefully, but tread carefully (Lillejord 2003). Breidablikk School has a leadership that so far has managed to maintain this difficult balance, and through a broad-based management process, school leaders laid a good foundation for learning to take place at all levels of the organization."* PWC 2009

### ***Further development of pedagogical professionalism and repertoire***

At Bredablikk the projects FFO and EUREKA were used actively for further development of the teachers' pedagogical professionalism within the adapted education and the second reading education

Through the FFO / EUREKA project the collective development processes challenge the teachers' professionalism understood as teachers as specialists in their field and in their pedagogy, but the challenges have also ranges which affect the school as organization. In this perspective, both school leadership and teachers are depending on the organizational overall understanding concerning structural, procedural and performance issues. Bredablikk school has made some active choices that affect the social contract they are a part of, and that requires a professionalism in the justification of choice, interaction, continuous evaluation and documentation, and a good communication with the school's principal actors, students and parents.

In 2010 the school changed leadership. The new leader had, like the old one, been one of the driving forces behind the innovations and had the old leader's full support. But in changing leadership, there has been a certain tension and uncertainty among the teachers, and the FFO-reform disagreements have reoccurred. The new principal however, was prepared for the situation, and has brought the school into a renewal process, also due to the fact that school results do not seem to have moved forward.

### **Evaluation and assessment for further developments**

During the innovation, the school made certain efforts to secure the process:

- *Continuous evaluations*, both internal and external are part of the process. Experiences and new issues are dealt with along the way. In addition, the school carries out surveys covering both pupils and parents.
- There is also a digital *evaluations system for parents* to evaluate liaison teachers, together with pupils.
- New *reporting systems* for what has been achieved within different disciplines, and the distribution of time between them, have been created. This is important in ensuring that different practical methodologies do not undermine overall and shared learning objectives.
- *Closer co-operation with parents and pupils* have been achieved by involving their associations more closely in the everyday running of the school. This arrangement is important to secure support and clarify duties and obligations between the parties.
- A *working group of pupils* makes proposals for teaching areas, including practical teaching methodology based on interests.
- *Formal documentation of methodology*, on paper, and digitally is carried out through the whole period.
- *Increased responsibilities for teachers* are secured through commitments to specific plans and implementation of evaluations in accordance with these.

In January 2012, the school enter new processes of evaluation and assessment of the school and reforming their vision and their strategy.

## **C. The nature and quality of learning taking place in the ILE**

### **C.1 Main elements in the new model**

*The point of departure* was that too many pupils in Norwegian lower secondary schools are bored, lack motivation and achieve too little in terms of learning outcomes. The school's intention was to make learning more connected to pupils' interests, mastery and motivation, and more relevant to life outside school.

The principal says that: *"...the school wanted to build on pupils' strengths and a more practical approach to learning, and the aim is to give the pupils a more adapted education and a foundation for conscious and reflected educational choices. Increased learning pressure, mastery, motivation and positive identification with school objectives are central key concepts in the model.*

*If the choice of interest is taken care of, but the content is too academic, evaluations indicates that it will lead to less motivation. To be invited to impact the content of the exercises seem important to the pupils. At Bredablikk we insist that equal education is not the same as identical instruction for all. The main aim is that the pupils to a higher extent will be able to use their interests, both theoretical and practical when they work to meet the goals of the Knowledge Promotion Reform."*

Through the different tracks the pupils develop a better understanding of their relative strengths as a basis for high school choices. During the second half of the first year in lower secondary school (8<sup>th</sup> Grade) pupils are presented to the choices that are available for all of them the next year (9<sup>th</sup> Grade). They may choose the traditional track, rather than one based on personal interests. Pupils and parents are informed through leaflets and meetings. There is also a video available.

Breidablikk School focused on leadership and organizational development, good project management; a research based professional reading content and a procedural approach. Through this however, they did not seek for the "right answer", but rather the good and adapted solutions that can support the aims on more adapted tuition and increased reading comprehension for the pupils.

The two main aims for the school were formulated 1. *As a school where parents, pupils and teacher work together for increased reading comprehension in all subjects for the pupils (EUREKA) and 2. A school where the pupils' needs for learning through a variety of theoretical and practical pedagogical approaches to the aims for the subjects are taken care of (FFO).*

For pupils within the traditional track, *Frøy*, they would learn within regular pedagogic. Here teachers would appeal to various interests, but not a particular one. This track, as well as the others in Frigg, has their one week project six times a year, but the approach to the project will differ. The teacher may use teaching material made for any of the Frigg tracks, or they may make their own.

For pupils within the *Frigg* track, the pedagogic would be adapted, based on choice between the four fields of interest available: *Environment and out-doors*, *Sports and life style*, *Music and culture* and *Media and craft*. Pupils who chose the *Environment and out-doors* could for example go to field trips where they study various factors of the eco-system and how human activities may influence it, as part of their natural science studies. Pupils within *Sports and life style* track could learn Pythagoras by rappelling down the old ski-jumping hill. Also, when preparing for bicycle trips, they learn how to calculate average speed between destinations. For pupils in *Music and culture*, the relationship between the length of a string and the tone could be treated as a mathematical subject. Within the *Media and craft* track mathematics may be linked to budgeting and accounting related to the making of a TV-production.

In addition to building motivation for the pupils by offering them a practical oriented pedagogy built on their interests, the different tracks teach them about their future choices in upper secondary school. Formally, this is built into the school's plan for the subject "Educational choice" (and from 2011 the new subject called "Optional subjects"). That way, this subject turns out to be a natural part of the different tracks in opposite to be a separate subject as is the normal solution in other schools.

Through this process pupils are given the opportunity to make choices between different tracks, sometimes more than once. In this way they prepare for choices in high school, and also learn to see that choices have consequences. The *Odin* track differs more clearly from the traditional school model. It is for a selected few that need special learning support. It takes place at a separate location, a nearby farm, with a stronger emphasis on practical pedagogic. Mathematics may be linked to practical challenges in constructing cages for animals or calculating the circumference of a tractor wheel.

This practical focus has led to the school expanding the focus and concentrating on other practical arrangements as well, which also include a closer collaboration with the local business community, still with a view to future elections and relevance of activities. Two of the school's additional cross-cutting projects are of particular importance.

The first is the three year practical *building and living* project, where pupils build houses at the scale 1-20. They get to play the roles as builders, gardeners, electricians, bank employees, real estate agents and several other occupations. In relation to this, the school cooperates with representatives of many different businesses. Pupils employ digital tools used by architects, and houses are furnished with electricity and self-made furniture. All design should be consistent with a sustainable environmental perspective. For this project the school has a formal partnership with 5 local firms.

The groups of pupils are put together by the teachers and given roles according to their individual aims, qualifications and suppositions. There are about five pupils in each group, and they are all from the same

class. The eight graders work with the theme: "The building place", they draw the house paintings, get building permission, bank guaranties and build their own house. The nine graders work in the same groups a year later, working again with their one year old house. This time with the theme: "House and home", were they fit out the rooms and plan and make the garden. They now represent different interests from their FFO-groups as well. This strengthens the social boundaries, and they are trained in working with old teams, adjusted if necessary. The ten graders work with the theme: "My future", where they are moving into the houses, are supposed to make their living and organize the everyday practice of their future family. During the three years, the pupils meet people from different relevant professions and civic offices at each level. The teaching covers a certain amount of aims in the curriculum through this work.

The other cross-cutting project is a *school musical* that involves as many as 150 pupils. This was initiated before the FFO-reform project, but in a way that had few links to the other activities in the school. Within the FFO-reform perspective, the musical has acquired new significance. As with the building project, the musical is developed with a closer link to other learning activities, as part of a practical pedagogic. In connection with this, the school has also created a drummer corps.

### From Breidablikks information brochure for parents for the school year 2011/12:

... ..

**What** is **FFO?**

Pupils start in year 8 in mainstream classes. During the first half year they are introduced to the alternative choices they can make for the 9<sup>th</sup> and 10<sup>th</sup> grade. These choices can be compared with how they choose in high school, according to interest. Each choice can be made annually. If you do not want this offer, you are allowed to do nothing. This returns you automatically to FRØY ("normal" class). If the pupils select a practical course (FRIGG) they will meet a practical methodical program/ project 6 times that year. Such arrangements tend to last from 1-6 days depending on what learning goals the class is working towards. The 6 schemes may have different duration, but is based on the specific interest. FRIGG trails currently has three different tracks: Media & Design, Music and Culture, Sports and Lifestyle. FRØY-classes also have they're 6 programs, but here the teachers choose freely from all interest groups or they use material they have prepared themselves.

#### Building and livening

The school offers a three-year practical project for the entire school called the building and living project. It has a week's duration at all levels for all students and is also part of the FFO. This project is an extensive collaboration with industry, and the pupils face a number of professions as coaches while building their own houses, decorating them, put in power and work with outside areas. Among many things, they set up accounts, using the same digital tools as architects do. This project has generated a number of awards to the school over the years, including: Technology and Design Award, Science Award and the Partnership Award for collaboration with industry.

**Our** **musicals**

Breidablikk School is known for its musicals, and they are indeed of very high quality. It gives an opportunity for everyone to join; you do not necessarily have to be on the stage. There are many other roles to fill out in a production. At its peak, over 150 students from all levels participated in one show. There will be a musical this year as well, more information coming soon from Breidablikk Theatre Workshop.

... ..

It is a common feature for the FFO-weeks, the building and living project and the school musical, that the learning processes take place within, and between groups of pupils as co-operative learning. This also makes the school days different in the FFO- and project periods. For example, all planning, building and economic decisions in the process of building houses are taken within the certain group of pupils, where they all have different roles and tasks. During the house-building work, the pupils are also consulting different professional people who have signed a collaboration contract with the school, like the architect firm, the bank management, the local carpenter etc.



Organizing the building sites



Meeting the architect



Painting one of the houses



Checking out if the electricity works

## D. Impact and effectiveness of the ILE

### D.1 Present situation – outcomes

The interest-based pedagogical model is widely considered to be a success. The school has received several awards. In the spring of 2010 55 per cent of the graduating class received 5 or 6, the two highest grades, on their oral exams. This was the highest score in the city of Sandefjord, where Breidablikk is located. In 2011 the corresponding result was 52,7 per cent. In the city almost all pupils enter high school, but the completion rate is only 70 per cent. In Breidablikk the score is almost 80 per cent. This is also the second highest score in the county.

On the other hand, the principal states in an interview in January 2012: *“We are going to make a thorough evaluation of our project. We can see that Breidablikk school has stood still as far as the pupil results are concerned. That is not because our pedagogical strategy has failed, but because we have failed in our project management. Due to that fact, the ideas have not been carried out in practice in all classes, and we have had some deep conflicts in the staff with a culture for resistance among some of the teachers.”*

The focus on reading comprehension has been there and is still important, but the classroom practice varies too much and the school has to renew their efforts in the classrooms. The building and living project is very successful and has now been improved by the teachers themselves. It is implemented as a living project owned by the teachers.

But especially concerning the FFO-tracks, the school faces some challenges and disagreements. Some of the teachers have used too much energy on frustration and anger, and the school has faced challenges in organizing the FFO tracks. However, as the principal states: *“We are now starting a renewed process together, discussing our pedagogical approach and vision. The latter has not been clear and good enough, and has not been shared by all the staff.”* That way, the school’s celebrations of the prizes and the small victories was not appreciated among the staff as fruits of their own profit. Now, the most important opponents are not there anymore, and the school has added some new, well respected and skilled people to the good staff they already have.

In this situation the school experiences that children from the delivering primary schools are nervous that they will not get the chance to choose the practical tracks, and also the parents wish for the system to remain. Actually the Parent’s working committee has really turned into a supporting force for the FFO-tracks organized at the school. The teachers are positive as the new process of evaluation of their experiences is starting, and the school has a huge amount of shared pedagogical recourses that the teachers have made especially for the different FFO tracks. And shared at the school-web.

**From Breidablikks Christmas Letter to the parents 2011:**

“Breidablikks aim is to be a culture school that seeks and emphasizes every strengths of the pupils. A practical approach to the theory has been priority though several years, and will stay so in the future. If that means continued FFO or not, the time will show, the practical focus will remain. In autumn 2012 a subject for choice will be introduced in lower secondary school, at first at 8<sup>th</sup> level. The subjects for choice that are introduced so far, shows great similarity with the school's existing offers.

## **D.2 How do Breidablikk meet the 21st century learning principles?**

The Breidablikk lower secondary school case do first and foremost meet the 21<sup>st</sup> century learning principles that concerns the crucial role of motivation and emotion in the classroom learning (chapter 4) and the benefits of co-operative learning (chapter 7) in “The Nature of Learning” Dumont et al (2010).

As for the co-operative learning perspective, observations gave a good impression of co-operating children in the building project. As stated in Chapter 7, p 170: *“...co-operative learning almost always improves affective outcomes. Students love to work in groups and they feel more successful and like subjects taught co-operatively. ... When the group task is to do something, rather than to learn something, the participation of less able students may be seen as interference rather than help ...”* (Dumont et al 2010)

The school video made in connection with the FFO-FRØY tracks, give a good impression on how the teachers and pupils all contributes to forming the program for the special interest weeks.

As for the crucial role of motivation, the whole idea with this innovation was based on the focus on motivation. As a teacher say in an article named *Interest based choices for increased motivation at Breidablikk lower secondary school, Sandefjord*: *“The basic idea was that the pupils would learn more if they were allowed to meet the curriculum via their own interest fields. That way, the school wanted to play on layer with the pupils and offer a school that could help more of them feel at home in the classes. The pupils in lower secondary school are in a formative phase, so motivation for the school work may as well be about access to challenges for building attractive identities in their everyday school practice.”* In that perspective, the different tracks offered will give the pupils opportunities to develop their different pupil styles to include school successfulness.

These suppositions do at least meet key principle 1, 3, 4 and 8 in chapter 4 in The Nature of Learning. (Dumont et al 2010). For example, the co-operative approach gives the students a chance to understand and integrate learning strategies through observing and participating in social learning activities (p105). The practical approach on the other hand, gives practical oriented pupils the opportunity to really feel competent and take advantage of that they think they have what it takes to do specific tasks required (p 96). The opportunity to get to know their strengths, in turn help the pupils to choose the right track for upper secondary education, and to obtain sustainability for school work and for further education.

Some of the pupils say about FFO: *“It is nice to start learning about your personal qualities at an early stage”, “the balance between the usual school and the interest weeks are great”, “It is quite cool to participate in Music!” and “We learn Pythagoras with ropes in the woods”.*

So far the pedagogy at the school has been highlighted. In addition, one could also highlight the benefits the school and the pupils get from the co-operation with the school environments, where they get access to new and different learning arenas and experiences.

### **D.3 The Bredablikk innovation story seen in relation to John P. Kotter’s 8 required steps for change**

We have analyzed this case and its developments in the light of John P. Kotter’s theory of the eight steps that are required to achieve sustainable change in the school culture. In this last section, we give some references to what this school, the school leadership and the staff has been through in their development process.

#### ***”Step 1: Establishing a Sense of Urgency***

- *Examine market and competitive realities*
- *Identify and discuss crises, potential crises or major opportunities” (Kotter 1995)*

The school experienced they’re situation as indefensible, with:

- Traditional pedagogy
- Generally low performance (PISA)
- Decreasing motivation and energy among the pupils
- Reading skills on a downward trend
- Increasing drop-out level
- Modernization with new school buildings in 2006 did not fit with the traditional pedagogy

As result, they experienced mismatch and frustration among the teachers. The period was characterized as chaotic, and within relatively short time, a number of teachers quit their job.

#### ***”Step 2: Creating the Guiding Coalition***

- *Assemble a group with enough power to lead the change effort*
- *Encourage the group to work as a team” (Kotter 1995)*

The idea of making a new type of school emerged at a staff meeting, and immediate steps were taken by the school leadership:

- Immediately a group of 6-7 people were established and given time and space for developing a vision and plans
- Over the 2 next years, ca 20 people participated in this project group of members from the school leadership, teachers, parents and environmental stakeholders
- A teacher states: *“The whole thing started with an idea from a teacher of creating a more practical school by offering different study programs, that the pupils could choose between”*

#### ***”Step 3: Developing a Change Vision***

- *Create a vision to help direct the change effort*
- *Develop strategies for achieving that vision” (Kotter 1995)*

The new vision for the school was discussed:

- The idea was to create a more practical lower secondary school where the learning should be more based on the pupils personal interests
- New organization in 4 tracks in addition to the traditional one: i) music and culture, ii) sports and lifestyle, iii) media and crafts iv) nature and environment

- In addition two consistent actions: Focus on reading skills in all subjects and a practical "building houses and living" project
- **The vision: Together we shape values for the future, through knowledge and creativity**
- The projects were many and complex, and as the principle say today: It has been too hard to understand really what was going on, for the environments as well as the teachers themselves (or some of them)
- The vision was communicated out, but the resistance grew from within conflicts in the staff

***"Step 4: Communicating the Vision for Buy-in***

- *Use every vehicle possible to communicate the new vision and strategies*
- *Teach new behaviors by the example of the Guiding Coalition" (Kotter 1995)*

Focus became development of school leadership and organization, project management, knowledge based reading content and a procedural approach to the aim to become a new type of secondary school where:

1. Parents, pupils and teachers work together to improve students' reading comprehension in all subjects (EUREKA)
2. Students learn through a variety of theoretical and practical pedagogical approaches to goal achievement in the subjects (FFO)

Today the principle states that the vision was probably not the right one and not effectively communicated

***"Step 5: Empowering Broad-based Action***

- *Remove obstacles to change*
- *Change systems or structures that seriously undermine the vision*
- *Encourage the risk-taking and nontraditional ideas, activities, and actions" (Kotter 1995)*

Lots of empowering support was available:

- Support for the teachers by giving space and time for development work
- Support from external experts
- Support from national authorities
- Support for teachers to build their competencies
- An opportunity to stick together against outside obstacles

***"Step 6: Generating Short-term Wins***

- *Plan for visible performance improvements*
- *Create those improvements*
- *Recognize and reward employees involved in the improvements" (Kotter 1995)*

The school has been nominated for, and has received both national and international prizes on behalf of their practical approach to the subjects. Among them are a science prize in 2008, a prize for technology and design in 2009, a national prize for partnership between school and business in 2009, and they were nominated for the related international partnership prize in 2010.

All those were celebrated at the school, but the teachers seemed to take a distanced approach to the celebrations and did not relate to the victories. According to the principal, that was one of the signs of alienation that characterized the school at the time when the conflicts within the staff had grown. They suffered from a:

- High level of conflict
- Strong sub culture against the change
- The short-term wins was shaped and celebrated, but the teachers did not accept them

***”Step 7: Never Letting Up***

- Use increased credibility to change systems, structures and policies that don't fit the vision
- Hire, promote, and develop employees who can implement the vision
- Reinvalidate the process with new projects, themes, and change agents” (Kotter 1995)

Today, as the principle summarizes the situation, she found that:

- The performances of pupils has not changed
- The resistance has grown but also weakened in different groups of staff and stakeholders
- New teachers and leaders hired, some old ones have quit

The school leadership has now started a renewed action process where the whole school is engaged:

- Processes are renewed, change agents in the staff supported
- Pupils and parents are very supportive and demands the new pedagogy
- National authorities have started development of the lower secondary school level that are quite similar, but still leaves Breidablikk as a pilot

As part of this process, the school thinks that their vision has to be renewed as well

***”Step 8: Incorporating Changes into the Culture***

- Articulate the connections between the new behaviors and organizational success
- Develop the means to ensure leadership development and succession” (Kotter 1995)
- Parts of the new pedagogy has been Breidablikks new common culture
- Means to ensure leadership and staff development are taken
- Strong support from parents and environmental stakeholders
- Support from new municipal leadership who states that: ”If you succeed, this will be the way we organize lower secondary school in our district”

This case is a story of innovating a new type of a lower secondary school in the Norwegian context. It is a story where the innovations have survived in spite of outer and inner resistance, but where the school has never let up, and are still in progress.



The staff at Breidablikk lower secondary school, 2009

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