

# **LEARN MORE BY SPENDING LESS TIME IN SCHOOL?**

## **Flexible and eLearning methods as a means to support regional and local development**

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### **Abstract**

Can learning become more efficient and individually targeted when designed by flexible eLearning methods?

Open and distance learning in the sparsely populated province of Jämtland has its roots in the early 1990ies. This paper deals with some of the results of methods developed during the last three years. The project has served several parts of the educational system – both upper secondary education and training for young people and adult education. In many cases both systems have been mixed. Flexible education can facilitate individual learning to meet very specific needs. After more than ten years ODL has brought added value to life and made a difference for many people – both as individuals and in the service to citizens and local companies in remote areas.

### **Background**

The Foundation of Knowledge and Competence (KK-stiftelsen) has given financial support for the development and further achievements of the Networked Upper Secondary School (from now on called NVG) in the province of Jämtland in the middle of Sweden. A final phase was implemented in the period of 2001 –2003 and was focused on flexible learning.

The general idea of flexible learning within NVG is *individually adapted learning based on the personal responsibility of the student, broad ICT – use and that the learning activities are partially independent of time and place.*

It can be said to operate on three levels as

- flexible studies – student level
- flexible teaching – teacher level
- flexible education – organisational level

### **Upper secondary education in Sweden and adult education – an introduction<sup>1</sup>**

Every municipality in Sweden is required by law to offer all students who have completed compulsory school an upper secondary education. In principle, students also have a right to receive their first choice of program. Upper secondary education is free and a non-compulsory form of school.

The right to begin an upper secondary school program applies up to and including the calendar year in which the student turns 20.

Swedish upper secondary school gives students the basic skills needed to live and work in the community, and prepares them for further study.

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<sup>1</sup> Swedish Upper Secondary School <http://www.skolutveckling.se>

## **National programs**

As of 2000, there are 17 national programs, all of which are 3-year programs. The programs provide a broad general education and eligibility to study at the university or post-secondary level. Thus the school system offers both education and training.

The programs are

- Child and Recreation/Recreational, Educational and Social Activities
- Construction/Construction, Building, Painting, Metalwork
- Electrical Engineering/Automation, Electronics, Electrical- and Computer Technology
- Energy/Operation and Maintenance, Marine Technology, Heating, Ventilation and Sanitation
- Arts/Art and Design, Dance, Music and Theatre
- Vehicle Engineering/Aeronautics, Coachwork, Motor Vehicle Mechanics and Engineering, Transport
- Business and Administration/Business and Services, Travel and Tourism
- Handicrafts/Various trades and crafts
- Hotel, Restaurant and Catering/Hotel, Restaurant and Catering Services
- Industry/Local specializations, country-wide recruiting
- Foods/Local specializations, country-wide recruiting
- Media/Media Production, Printing Technology
- Use of Natural Resources/Local specializations
- Natural Science/Mathematics and Computer Sciences, Environmental Science, Natural Sciences
- Health Care/No national specializations
- Social Science/Economics, Liberal Arts, Social Sciences, Languages
- Technology/Local specializations

There are also specially designed programs and individual programs.

Every program comprises 2 500 upper secondary credits. The guaranteed number of instruction hours varies from program to program. For Natural Science, Social Science, and the Arts, the total is 2 180 hours, and for other programs 2 370. All of the national programs include the eight core subjects of: English, the Arts, Physical Education and Health, Mathematics, General Science, Social Studies, Swedish (or Swedish as a Second Language) and Religion. Together, the core subjects add up to 750 credits. Credits acquired by distance educational programs are given the same value as “traditional” courses.

## **Upper secondary education for adults**

Adult education is a special state initiative. Students aged 20 or older may attend municipal adult education (Komvux) programs at the upper secondary level, an option being chosen more and more. Komvux also offers continuing education programs that provide the student with specialized knowledge and skills in a particular occupational field. Adult upper secondary education and the regular upper secondary school for youths share the same syllabi and also the same curriculum.

## **Six different development paths in NVG**

As shown above the combined profile of the upper secondary schools to deliver both theoretical education and vocational training means that it has a very important role on the local labour market. NVG is a very good example of best practice ICT supported flexible learning or ODL, covering six somewhat different parts – meeting the needs of the local society

1. The Social Sciences program supported by ICT
2. The Health Care program at a distance
3. The Course Market
4. ICT tools
5. Teacher training and in service training of staff
6. Organisational and administrative matters

### **SPIT - Learn more spending less time in school?**

The most traditional program engaged in NVG is SPIT. It offers a university preparatory program of three years. In Östersund the Palmcrantz school has focused on project studies for longer or shorter periods throughout the school year. Most of the time the students spend three days organised by ordinary lesson work with two days for individual and/or group work or at home if needed. These studies are cross curricular and make rather intensive use of ICT for communication, collaboration and presentations.

The students witness that they are very satisfied with their studies and that they get a more comprehensive understanding through the wholistic approach. They also maintain that they get better prepared for university studies and that they save time as the different subjects are integrated in the projects.

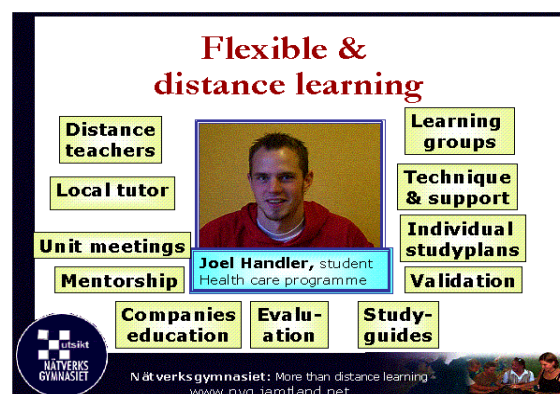
As Edström<sup>2</sup> has shown both students and teachers experience a more personal study situation. The transactional distance between teacher and students is often shorter in ICT supported courses of projects.

### **Best practice maintaining and develop local health care education**

Another path to cover specific needs is the development of the Health Care program at a distance. This training program offers a vocation as assistant nurse if the whole program is chosen.

At many study centres throughout the province students gather to communicate and collaborate through e-mail and videoconferences. According to the individual situation of the learner validation is used to offer course content, which enables the student to reach his/her goal at an own pace and place. NVG has thus created a further development of what Carl Holmberg has pointed out as scarce – individual solutions.<sup>3</sup>

The situation of the student is illustrated like this:



<sup>2</sup> Rolf Edström Flexible Education in the Upper Secondary School: Extended Classrooms and a Decreased Transactional Distance Doctoral thesis, Uppsala Universitet

<sup>3</sup> Holmberg, C (2003) Mångfald kräver mångfald Artikel i Per Distans Nr 3 2003 eller <http://www.sverd.org>

The result is a strengthened infrastructure in small towns and villages. It also contributes to the labour market for local companies, since the students acquire computer skills. They also might want to take other vocational courses once they got used to the idea of becoming a student.

## **ICT educational tools and study centres in a regional strategy**

The province early developed its own First Class conference support system This now has a coverage that is higher than any other example in Sweden. This is unique and made more efficient by new linked tools such as online evaluation, short video clips or entire web based courses etc. This advanced First Class system is the technical infrastructure on which the network of study centres in the province is built. Though the study centres are not part of the original NVG project it facilitates easy to use technical help with updated advanced tools suitable for mature eLearning use, demanded by users who can formulate their needs.

### **The course market**

The idea behind the course market was the fact the province needed to share their teacher staff as well as the costs for development of learning material. For some courses too few students in each municipality signed up. But if the course offer was turned into a flexible one using ICT methods, it could be defended as a cost.

So seven municipal bodies divide the responsibility for course production among them and display their products on an open online market. It is also possible for other municipalities in other parts of the country to register their courses. The courses are categorized and searchable for whoever is looking for a course. Online registration is possible, and counselling is offered by phone or face to face. Different municipalities take the responsibility for tutoring.

More than 130 courses are offered. There is a great diversity of subjects and courses – languages, science courses, health care etc.

Costs for tutoring, development and support systems need to be covered in a well designed system of agreements between the different municipalities. This means that co-operation is a paramount concern and a decisive success factor. There mechanism for sharing costs, displaying the courses in an intelligible way, counselling etc. still needs elaborating<sup>4</sup> but the overall impression is that NVG has created a model for sharing development costs and further the diversity of courses offered.

### **Organisational matters**

After more than ten years of experience there are many things learned in the areas of school leadership and organisation facilitating pedagogical change. The end result was an agenda of 21 items, here presented in somewhat shorter list:

- Flexible learning can be used in combinations with classroom based courses as well as with distance courses
- Flexible learning is a key factor of development for students with special needs.
- The contact between students and teachers becomes much closer when flexible learning methods are used
- Learning can get very individualised through flexible methods
- Communication through computers (e-mail and fora) can strengthen “silent” students

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<sup>4</sup> Erica Sahlin, En utomstående betraktelser – Utvärdering Nätverksgymnasiet Jämtland 2001-2003

- Flexible learning paves the way for creative students
- Tutoring is a new job in the schools teams in many schools
- Co-operation and team work are decisive in the professional development among the teachers
- School management is important both as owner of the development process and as support for and facilitators of change
- Sometimes there is a need to make teachers use digital equipment even if they don't see the need for it at first glance just to convince them that they have the ability and power to succeed
- Teacher training is the single most important factor to bring staff on board the development process
- Don't organise too much, but make possible for teacher to meet and discuss thus enabling a smooth platform for teacher co-operation

### **Their own book**

In December 2003 NVG published a book called "Flexible learning"<sup>5</sup> in which almost all teachers and tutors involved on 256 pages depicted their versions of flexible learning. It illustrates that there is no relation between the age of the teacher and his or her attitude towards development of flexible methods. Somewhat unexpectedly young colleagues often have more difficulties to adopt than their older team members. This indicates that readiness for change might be more common among teachers who have their own platform of experience to relate to. The book promises a very strong impact on professional discussions as it shows solutions and models easy to copy in everyday educational life. It has a very special value as a true handbook for teachers and school managers by colleague teachers and leaders.

### **Summary**

The work of NVG has meant that a whole new model has been created for schools and educational units interested in development of learner autonomy, flexible learning and eLearning. The last phase of NVG brought new results in the fields of validation of former training, collaboration using ICT and organisation of independent learning. It has indicated new structures supporting individualisation among both young and adult learners and it has brought a deeper understanding of the interaction between learners, tutors and teachers. It has also offered new ways for educational institutions to respond to local and regional needs of learning and skills in local labour markets. Last but not least - teacher and staff training are of paramount importance since flexible learning is first of all a question about fundamental values!

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<sup>5</sup> Flexibelt lärande Nätverksgymnasiet, Bräcke 2003

## References

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