

## Finland

**From Special Education Classes Towards Inclusion in Expanded Learning Environment**

*This project involves a model to better implement inclusive education of children with special needs (aged 3-15) in regular schools by means of sensory, motor and cognitive exercises that enable the students to calm down and concentrate better, and improve students' self-confidence and monitoring of their own behaviour. Exercises are coordinated by teaching assistants before or during the regular lessons. Schools use a national curriculum, and individualized curricula tailored to the needs of the students with special needs.*

**Main focus of Innovation:** LEARNERS, TEACHERS, CONTENT, RESOURCES, ORGANISATION

**Other keywords:** equity

**General Information**

**Name of the ILE:** From Special Education Classes towards Inclusion in Expanded Learning Environment

**Location/Address:** The Keskuskoulu School, Kuhmonkatu 30, 81700 Lieksa, Finland

**Website:** [www.lieksa.fi](http://www.lieksa.fi); <http://koulut.pohjois-karjala.fi/Resource.phx/koulu/koulu-lieksa-keskuskoulu/index.htm>

**ILE submitted by:** The Town of Lieksa's Educational Department

**Rationale**

*Why do you suggest that it should be included in the project? How does it respond to 21<sup>st</sup> century learning challenges?*

In 2008 we started planning the inclusion in Lieksa and as of the 13th August 2009 we have two classes in the first and second grade. At the moment our goal is to have 50% of the children with special needs studying at their nearby school. This means we are in the process of rearranging the way we offer special education to these pupils.

One part of this project is to introduce and improve the innovative learning environment, which has been in use for several years for children with difficulties in learning and behaviour, to the educational system of the town of Lieksa. The idea has been to recognize sensory and motor dysfunction and how it impacts learning and behaviour. We have done adjustments in the learning environments and trained the staff on how the sensory motor exercises can be done in the classrooms.

We are in the process of arranging consultation for the regular schools, day cares and parents about how they can use sensory motor activities to improve child development.

To respond to the challenges in learning we use the newest technology, for example the Smart Board interactive whiteboard. In co-operation with the North Carelian Vocational school we are planning to set up a 'Matikkamaa' (The Mathland) to make mathematics more concrete for the children.

Sometimes we do adjustments in the classroom, but the main goal of the exercises is to give stimulation to the children so that they can process and integrate the sensory information they receive better. We take into consideration the sensory needs of the children in many ways because we find it plays a large role in learning and behaviour. The idea is that the Semoco (sensory-motor-cognitive) exercises are done by the teaching assistants before or during the regular lessons for a period of few minutes - in total around 15 – 30 minutes per day. If done during the lesson the teacher's assistant will do the Semoco exercises with the special needs students' one student at a time while the teacher concentrates on her teaching. And they love it! The children keep asking when it is their time to get sensory integration. Some exercises can be done as a group such as when we are 'marching' to the dining hall, we do an exercise where we ask the students to touch their raised knee with the opposite hand.

By doing the auditory and vestibular Semoco-exercises we try to desensitize the over sensitive auditory system of the pupil so that he does not feel so uncomfortable in the classroom and can be more relaxed and able to concentrate, listen and learn better. So we roll and spin the children, whisper, do light tapping to their ears and heads and do memory of words. All exercises are done for one or two minutes at a time.

For vision we want the pupils' eyes to move smoothly from left to right and to focus from far to near and back so that reading and copying something from the board is not painful. Therefore there are exercises for tracking with eyes, for accommodation and convergence. To improve the eye-hand coordination there are exercises of looking and touching or ball games etcetera.

The tactility exercises are to habituate over sensitivity of the sense of touch and for the pupil to gain a better picture of his body image and thus become less clumsy. The goal is to see improvement in the fine and gross motor functioning. For tactility exercises we brush the skin with a soft brush, massage and do deep muscle therapy to hands and feet.

Even in the regular school there are many pupils who cannot crawl and creep when they start school. So to practise motor and coordination skills we have our children crawling and creeping doing angels in the snow, different types of jumping jacks and X-pattern movements + crossing the midline. When the child is able crawl and creep well he can learn skate, ski and swim earlier and easier. So when the child notices that he can control his body and mind better than before, he becomes braver and more motivated to try new things.

This supports learning and we can see improvement either in physical or cognitive functioning of the student. All exercises are done as games and play so that they are enjoyable moments for both the children and adults.

Our experience is that by doing the Semoco-exercises the child is able sit and to concentrate to his work. At the same the metacognitive knowledge and self awareness improve. Social skills are also often improved for the child doesn't have a strong need for 'deep' sensation of touch so that he is not as rough with friends as before.

### **Evidence**

*Is there any evidence or indications showing that this initiative achieves the outcomes that it is aiming at?*

Since we have just begun the inclusion project, we have very little practical experience in it.

By using the sensory motor approach during past few years we have observed that exercises enable the students to calm down and concentrate better within the classroom and there is less impulsivity. The students listen and join in the teaching periods more. Their self-confidence and self-esteem is better. In working to normalize the sensory system and making the motor system more efficient we anticipate that the student will be able to better monitor their behaviour within the classroom and in their interactions with their peers. They are more interested in the right things.

We have been hoping to get a graduate student to do a study on how the inclusion project will proceed. A graduate student of the University of Joensuu has begun a study on how the parents react to the inclusion and their opinions of it. For the visual exercises there is a study done by two Optometrist students on how the visual exercises were beneficial to our students (c. 27), published in the 'Terveydenhoitaja' 1/2008 magazine for nurses.

### **Learning Aims / Intended Learning Outcomes of the ILE**

*What are the core learning aims and which knowledge, skills or attitudes are to be acquired? (These may include outcomes related to learners' social, interpersonal, or meta-cognitive development)*

By doing inclusions and the sensory motor exercises, we work towards the improvement of the special students' social fitness and their eligibility for further studies. One goal is to expand the learning environment outside of the school, so we encourage the pupils to visit for example the library, museums, adult education centres and vocational schools or to use communication technology to do this.

One of the outcomes of the project will be different models on how to better implement inclusion in school environments. Models on how to teach all students in the same classroom so that the students doing well academically will receive the same amount of time and resources as the ones with special needs.

This may mean one teacher and her group of pupils or two teachers simultaneously with a mix of students with different needs. When a regular and a special teacher are working together in the same classroom, the regular teacher will get additional education and support.

We try to notice different kinds of developmental problems as early as in day care or early at primary school by increasing cooperation with social workers, psychologists, therapists and etc. We would also like to increase the cooperation between school and the parents or guardians.

One of the goals is to make it possible for students to attend the nearest school to their residence.

**Learners**

*Which group(s) of learners is it aiming at? Who is eligible to take part? How many learners are there? What are their ages?*

The children in Lieksa, who are in day care or at school = ages 3-15 are eligible to take part in the project. Initially about 200 pupils in the schools located at the centre of Lieksa and approximately 600 after the outlying schools are brought in.

**Facilitators**

*Who are the teachers/facilitators? Who are the leaders? What are their professional backgrounds? What are their roles?*

The facilitators for the inclusion project are special education teachers, regular education teachers and teachers in day care. They all have done studies in education or special education in universities. The teachers work with assistance of the rest of the staff.

The project is managed by the board consisting of the Head of Educational Department in Lieksa, two headmasters, one vice headmaster, one special teacher, one parent and the project coordinator. The role of the board is to choose and design methods that will be put in use according to the planned schedule. The project coordinator is a teacher in special education, who has been working as the special education coordinator for Lieksa.

**Organization of the ILE**

*How is learning organised? How do learners and facilitators interact? What kind of pedagogy do they follow? What curriculum is used?*

The schools in Lieksa use the nationally used curriculum and for the special students there are individualized curriculums tailored to their needs.

**Learning Context**

*In which context does learning take place? What does the physical learning environment look like? Are community resources used to facilitate learning and how?*

There are 'Smart Board' interactive whiteboards and computers in some of the classrooms.

We take in consideration the sensory needs of the children. There are textiles and sofas in the classrooms to absorb noise and also to make the rooms more comfortable. To be able to do the sensory motor activities there may be a mirror, a swing, Airex mats and other equipment in the classroom.

**History of ILE**

*Who initiated it? For what reasons was it started and with what purpose? Have these changed since?*

Because the amount of children with special needs has kept increasing, the Department of Education in Lieksa decided to take action.

**Funding of the ILE**

*How is it funded?*

The Finnish National Board of Education (FNBE) is funding the project with 40.000 Euros and the rest of the funding comes from the town of Lieksa.

**Learning Outcomes**

*What are the learning outcomes achieved by the ILE, including academic, social, interpersonal and meta-cognitive outcomes? How is learning assessed?*

As the students' behavior calms down they are better able to function structurally and can study more efficiently. Practicing the sensory motor exercises before studying has a positive effect on self-confidence. Academic skills are better if the students can concentrate well. Social skills are also affected when pupils can concentrate on studying instead of behaviour. Metacognitive awareness may improve and interpersonal communications work better.

**Other information you consider to be relevant to describe the ILE**

We hope that the University of Joensuu will do a master's thesis of our program. For more information on the sensory motor exercises see: [www.apuaarkeen.org](http://www.apuaarkeen.org)