

Austria

Volksschule 23 Klagenfurt - Wölfnitz

This primary school for children aged 6 to 11 aims at individualized and differentiated teaching in mathematics and German in order to actively counteract dyscalculia and to provide efficient support strategies to children with dyslexia as early as possible. The school develops and applies interdisciplinary curricula, with mathematics as the starting point. Learners work independently on pre-planned units, in line with learning schedules applicable for longer periods of time (6-8 weeks), and the teachers function as coaches, using different methods including Montessori pedagogy. The school is involved in pilot projects on action-oriented learning in science as part of a federal program aiming at improvements in mathematics and science instruction.

Main Focus of Innovation: CONTENT, ORGANISATION

Other Keywords: alternative philosophy

General Information

Name of the ILE: Volksschule 23 Klagenfurt - Wölfnitz

Location/Address: Römerweg 36 9061 Klagenfurt

Website: www.vs-klagenfurt23.ksn.at

ILE submitted by: Province School Board / Federal Ministry of Education

Rationale

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

- School programme and mission with marked ecological orientation and active learner participation
- ECOLOG school for 6 years now
- 1st school in Carinthia to be awarded the Austrian environmental quality seal
- IMST pilot school (math & science: learning through experiments)
- Winner of the IMST award 2008: “Small children conquer the world of large numbers”
- Development of the EVEU model for the individualised and differentiated teaching of German and mathematics at primary level 1
- Planning and workshop teaching (mixed-age offers)
- LLL project: “Green Point – Activities for sustainable learning” (from 2008)
- Comenius school development project: “Outdoor Learning for the Future“(2004-2007)

Evidence

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

In 2007/08, the school was an IMST pilot school, which involved internal project evaluation, and continues to be an IMST school in 2008/09 with three projects.

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)

Our primary aim is to offer our children up-to-date, individualised and differentiated teaching in mathematics and German in order to proactively counteract dyscalculia and to provide efficient support strategies to children with dyslexia problems as early as possible.

By up-to-date teaching methods, we understand:

- treating one another with respect
- developing team and problem-solving skills
- learning with all the senses
- aiming to provide a sustainable foundation for learning later in life
- finding out what pre-concepts, but also misguided ideas children have
- paying special attention to
different starting levels for learning
different aptitudes and skills
different learning speeds
- accommodating small children’s interest in counting and offering counting impulses without limiting the number range
- taking account of the latest findings of dyslexia and dyscalculia research

- offering support as early as possible so learners can develop useful strategies in mathematics and German
- inspiring children to be researchers and to show enthusiasm for and interest in their own personal development
- keeping in mind that not being able to understand implies a lack of knowledge; learning contents are to be acquired, consolidated and exercised through active, explorative and hands-on learning, for information cannot be converted into knowledge unless it means something to the learner
- remembering that learning achievements depend on prior knowledge as well as motivation; positive emotions pave the way for cognitive skills
- leveraging the motivational character inherent in games
- offering lots of possibilities for self-assessment so children can correct their mistakes on their own
- trying to make pupils, teachers and parents see mistakes as “friends” who help them develop
- building up the ability to analyse one’s mistakes
- organising parents' nights to inform parents about the prerequisites for cognition, about learning methods and the use of learning aids, about how to deal with mistakes and how to provide support and opportunities for exercise at home

Project aims:

- Development and application of interdisciplinary curricula, with mathematics as the starting point.
- Learners assume responsibility for their own learning process, working independently during phases of open learning and based on homework assignments, each according to their individual learning speeds, yet in line with learning schedules applicable for a longer period of time (6-8 weeks).
- Development of the number domain up to 10 000 based on learning schedules and with due consideration of the more recent findings of dyscalculia research. Over the course of the first few months, Montessori mathematics material as well as self-developed material and material from other sources is used to familiarise the children with numbers up to 10 (including decomposition, addition and subtraction) through a strongly action-focused approach and with due consideration of the more recent findings of dyscalculia research. Children’s interest in higher numbers is not discouraged, and golden bead decimal material up to 10 000 is used in dyscalculia prevention efforts. Being able to “handle” the various decimal units makes it easier for children to comprehend their order of magnitude and their relations. Working with Montessori material is to help children to develop an initial basic understanding of the decimal system early on, allowing them to venture into the realm of the “large numbers” in an active and hands-on manner. A text book for mathematics is not introduced until after the Christmas holidays.
- Application of the reading/writing-learning principles according to the “Kieler Leseaufbau” and “Lautgetreue Lese-Rechtschreibförderung von Carola Reuter-Liehr” programmes in the teaching of reading and writing skills
- These reading/writing-learning principles are designed to offer efficient aids to children with dyslexia problems.

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?

Our school is a state school open to pupils living in the city of Klagenfurt

EVEU classes: Primary level 1 (age 6-9) / 2008/09: 58 pupils

Research and discovery: age 6- 11 / 2007-09: 95 pupils

Comenius 1: “Outdoor Learning“: age 6- 11 / 2004-2007: 130 pupils

LLL project: “Activities for sustainable learning“ age 6- 11 / from 2008: 135 pupils

Facilitators

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

Additional qualifications:

- Montessori pedagogy
- Freinet pedagogy
- School librarian training
- Reading didactics course
- Course for developmental problems in school children (in particular dyslexia and dyscalculia problems)
- Various artistic qualifications
- Teaching qualifications for special schools
- Learning pedagogy

Teamwork instead of “lone wolves” approach:

Teachers have become facilitators and coaches in learning processes (helpers with a diagnostic approach) as well as life-long learners.

Extensive collaboration between teachers at primary level 1, in some cases involving mutual coaching.

Best practices are shared on an ongoing basis and work materials and documents are being prepared and further developed in a joint effort. Discussions of didactical issues are a matter of daily routine.

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?

- A prepared environment and reference framework based on Montessori pedagogy is provided, mutual respect and appreciation are the underlying principles of interaction
- The principles of “Kieler Leseaufbau” (designed for children with dyslexia, based on the use of signs or gestures for sounds, focus on syllables, etc.) are incorporated into the teaching of German for all children right from the outset so as to prevent problems from developing.
- Mathematics starts with pupils exercising counting and estimating as well as handling Montessori materials and self-developed materials in the number range of up to 10 000. Arithmetic operations on an abstract level are not envisaged before a preparatory period of about three months.

- Pupils work individually and independently on learning letters, numbers and the multiplication table based on pre-planned working units
- Following the more recent insights of dyslexia research, at primary level 1 we include only words whose spelling is phonetically regular and a few high-frequency words into the mandatory vocabulary that pupils have to acquire.
- Orthographic exercises do not start until primary level 2. We have chosen this approach to ensure that pupils successfully master a basic vocabulary in German.
- We apply the principles of Montessori pedagogy.

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?

- Every class at primary level 1 has its own learning materials, many of which are funded by IMST
- Comenius projects help with the funding of documentation
- The whole school building is a place of learning. The school garden and the school's environment are an integral part of school life.
- The school library is run in collaboration with the neighbouring general secondary school and is very well equipped.

History of ILE

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

- At the beginning, it was the vision of the new school head that led to the development of an ecologically focused school mission statement.
- School development projects such as “Outdoor Learning” and action- and research-oriented teaching entailed further changes and developments.
- Trying to provide more individualisation and differentiation in her lessons, Gabriele Zoltan realised that the school did not have enough expertise for addressing dyslexia and dyscalculia.
- Subsequently, the school became an IMST pilot school (IMST project: “Small children conquer the world of large numbers”)
- The project involved support and supervision by the Special Education Centre and gave rise to the EVEU model.
- Renate Otti was responsible for intensifying “research and discovery” activities at the school (IMST Project “Experimenting and action-oriented learning at primary school level”). Her ideas and experiences also provided input for further IMST projects.
- This year, the two 1st forms at our school, along with five 1st forms from other schools, have adopted the EVEU concept and are testing and developing it further.
- Starting with this year’s summer term, our school will be visited by students from the University College of Teacher Education in Klagenfurt, who have shown a lot of interest in our innovative approach to teaching.

Funding of the ILE*How is it funded?*

- IMST fund
- Life-Long Learning project
- ECOLOG / “Forum Umweltbildung”

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

- Simple surveys of learning starting levels with respect to phonological awareness and basic mathematical skills
- Ongoing surveys of learning outcomes
- Reading and writing screening according to the Salzburg model is conducted from year 1
- Mathematics testing based on the Eggenberger model is in the planning stage
- External evaluation by the IMST fund is planned as well

Documentation describing or evaluating the ILE*Is there documentation on this learning environment? Is there a website? Films? Research reports or evaluations? Other forms of documentation? (please supply references or links)*

- IMST project reports
- School programme - portfolio
- Comenius report and project evaluation
- Website
- Parents' newspaper