

B2 School portrait Hauptschule Ried

<http://www.c-m-c.at/>

1 General characteristics of the school

Hauptschule Ried in der Riedmark is located in the Mühlviertel, a rural area to the north of the Danube. The community has a population of 3,800. The school was founded in 1967 as an annexe of Sankt Georgen an der Gusen secondary school. Full expansion commenced in 1967 and the school was opened in 1973. It is attended by 250 pupils; taught by 25 teachers in 10 classes. OSR Herbert Wastl, who is the driving force behind ICT development in the school, heads it.

The first computer to be used in the school, for administration, was a Schneider CPC464 introduced in 1983. Very few teachers used it. In 1989 the school obtained 8 286 PCs that were used for so-called non-obligatory exercises. Interested pupils attended these additional hours of teaching voluntarily. In 1995 10 Pentium 133s replaced the hardware. Connection to the Internet via the Education Highway Oberösterreich² took place in 1996 (<http://www.eduhi.at>). Since then the school has participated regularly in ICT competitions. In 1997, at their request, the computing room was made accessible to pupils at any time, on certain conditions. In 1999 the councillors wanted the school to focus on ICT. A concept was devised, a finance plan drawn up and approved and the school was equipped with a new computer network. From the start of this school year ICT is being integrated into ordinary lessons in every third year class. The school calls itself a CMC HS (Computer – Medien Competence – Hauptschule) [Computer/Media/Competence secondary school].

The school currently has a computing room with 28 networked PCs and Internet access, with a file, Web and mail server. The EISitos learning platform is being installed and set up for the school. A mobile interactive whiteboard (smartboard) is used. A digital film camera and 4 digital video editing stations are used for film production.

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Vision of upbringing and education are formulated as follows:

computer literacy is merely a term against the background of the information society at the start of the third millennium. Competence in using information and media technology will be (is) a key qualification in all our lives – to deny this would mean blinkered educational policy. Achieving competence was and is the prime task of our educational institutions.

Since competence in using information technology is increasingly in demand as a fourth cultural technique, it is time to incorporate this skill into the generally prevailing educational canon.

The CMC HS's aim therefore is to offer any given pupil the requisite basic education in information, computer and media technology based on curriculum content. Every pupil in the CMC will be taught the conscious, independent and self-evident use of all (educational) media.



Broader and more in-depth teaching modules will be offered within the scope of Lehrplan 99's time scale too, and above all in the so-called extension field.

The school's ICT plan:

Year 1 (Class 1/5th grade/Age 10)

German classes adopt the task of teaching pupils basic skills in typing and text layout. In Mathematics the computer is used as a tool for calculation and exercises. Spreadsheets are introduced. English lessons focus on communication using the Internet. Individual teaching programmes are used in Biology and Geography. In Physical Education the computer is used to record and evaluate pupils' performance and in Music children learn how to write music and recording techniques.

The concept provides for all pupils receiving this education as part of the core curriculum. "CMC" classes are conducted as part of the teacher mentoring system. During these lessons a second teacher is available. In the extension field the mentoring teacher will offer a course that expands upon or repeats the class respectively during the lesson. In German the number of mentor classes amounts to 1 hour per week per class, _ hour each in Biology and Geography, _ hour for Maths, and in other subjects (content- or project-related) _ hour per class, i.e. a total of 3 hours per week per class.

Year 2 (Class 2/Grade 6/Age 11)

German lessons focus on information research and text layout, with spelling exercises and corrections being carried out using appropriate programmes. Spreadsheets are used in Maths and geometric constructions carried out. English lessons are devoted to WWW projects and use interactive, audiovisual programmes for language training (You&Me). Physics deals with the fundamentals of computer and media technology. History lessons take the historic development of ICT as their subject. Habitats are compared during Geography lessons as part of project work with partner schools and a homepage created for the community. In Art pupils can take and process digital photos. Digital encyclopaedias are used in all subjects.

Year 3 (Class 3/7th Grade)

German lessons focus on media design. The school produces a newspaper. Geometry work is done on the computer in Maths and spreadsheets are used. Gifted pupils are given an introduction to macro programming with VBA. Mediator, a programme for creating multimedia applications, is used. Technical Drawing teaches basic CAD techniques. WWW projects are conducted in English lessons and exercise programmes used.

In the remaining subjects ICT is used as an information and presentation tool and for group work. Physics and Chemistry lessons teach the principles of electronics, Geography deals with GPS, Art provides an introduction to animation techniques. Career Guidance addresses the use of computers in various vocational fields and a Career Guidance programme is used. Pupils start to take ECDL examinations.

Year 4 (8th Grade)

The emphasis in German lessons is on media design, a video is made, a homepage created and a school newspaper produced on CD. Maths addresses the basics of accounting and cost calculation. English lessons feature teamwork via the Internet. A multimedia CD is recorded in Music, Art deals with video processing and animation. In Career Guidance pupils learn the basics of programmes that are used in individual careers. Pupils sit ECDL examinations.

2 Changes for pupils

Integration of ICT into the regular curriculum results in changes in the learning process. Working with standard software, interactive multimedia teaching programmes, media production (presentations, animations, newspapers, videos) requires an intensive analysis of ICT in conjunction with subject content. ICT skills and subject knowledge are acquired simultaneously as a result. The desire of the whole school community that pupils should acquire computer and media skills was decisive for the school's emphasis. This was evident in discussions with the Mayor, the head teacher, teachers and pupils.

Pupils showed particular interest in making a short film. They played a decisive role therein from writing the script to editing the video.

The following software is used: standard software (MS Office), video editing programme, exercise programme, music manuscript writing programme, image editing programme, multimedia CD, You&Me and others.

During interviews pupils expressed the opinion that computer learning was more fun. They are more adaptable in procuring information, learn in a more integrated manner, possibly fewer facts, but they are better at and more critical in handling information. They are better at remembering information that they are interested in and that they find themselves.

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We visited the following classes:

History and Social Sciences

Pupils were studying the Landtag (Austrian regional) elections. On the Internet they found the parties' manifestos and aims and could take a virtual part in the elections, analyze the class system of franchise and discuss it. After the elections they researched the results, especially the result of the election in their own district.

English

Pupils were working with the You&Me programme, a collection of flexible, interactive exercises and multimedia materials accompanying the text book of the same name. They work independently on the computer, supervised by the teachers. Every pupil addressed the tasks they were given with great zeal and demonstrated their familiarity with the programme.

Pupil's forum

During the break all the pupils were called to the break hall by the head teacher and informed of our visit. These gatherings take place on a regular basis in relation to various topics from school life and provide pupils with the opportunity to discuss the topic in question openly. The mobile interactive whiteboard set up there is used for presentation and information purposes and can be set up in various classrooms.

3 Changes for teachers

Logical use of ICT requires teachers to prepare their lessons accurately. Tasks must be prepared for pupils in writing and be formulated precisely. This leads to them successfully working independently and the teacher having more time for individual pupils. He or she stands behind the pupil, looks over his or her shoulder and assists in learning.

Initially preparing lessons using ICT is considerably more laborious for teachers. Preparation has to be revised constantly too, because the technology and the programmes change.

Every teacher has investigated a great deal of time in CPD. At the start of the ICT initiative the entire teaching staff attended the ECDL courses offered in the school and sat examinations in individual modules. Quite a few of them gained the ECDL. Some teachers trained as IT teachers at the Teacher Training College. Further education events, regularly attended by teachers, continue to take place at the school but also in the area.

Standard software (MS Office), multimedia CDs and the Internet are the primary software used. Internet log-ons mostly take place via the EDUHI (Upper Austria Education Highway, <http://www.eduhi.at>) or the Google search engine.

Work produced by the pupils using ICT is included in assessed course work. Online tests are regarded more as part of the learning process and are used to provide the pupil with feedback.

Teachers reflect on the use of ICT and analyze its efficiency and effectiveness. They consider where it can be used logically and how much time should be expended searching for information on the Internet during a lesson, for example, or whether it is better to carry out exercises in the conventional manner on a sheet instead of using an exercise programme, which diverts the pupils' attention from the actual content as a result of too much animation. Very often it is availability of the computing room that decides the use of ICT in a lesson.

The advantages of ICT use lie in motivation, promotion of originality and independence in learning, in support for different learning speeds and prior knowledge, but also personalisation of the learning process and visualisation of the learning content.

Support for the school from community representatives (mayor, district councillors) is very highly prized. They desired and facilitated the school's emphasis.

ICT skills are a prerequisite for teachers to remain at the school. This applies to new appointments too.

4 Organisational changes

The school's organisational structure has not changed significantly. The driving forces behind the ICT initiative are the head teacher, community politicians, motivated teachers and pupils' parents. The community has made the necessary investments as maintainer of the school. An additional room has been set up as a computer room, cabled and equipped with furniture and computers.

The head teacher has initiated and led the school development process. In so doing he was supported by the Landesschulrat [Austrian Regional Education Board] (allocation of additional value units – hours for mentor teachers), by the Upper Austria Education Highway and various firms. Director Wastl was successful in his efforts to find sponsors for the school.

Teaching is evaluated on the one hand by the teachers themselves, and on the other by the head teacher attending lessons. Partner and group discussions take place and there are conferences to assist the evaluation process.

A desire for external evaluation has been expressed.

An exchange of experiences took place with another school (Grein secondary school).

The level of pupils' achievements in the field of ICT has been examined by a test similar to the ECDL examinations.

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5 Changes in co-operation with others

There is very close collaboration with community representatives, which promotes and supports the school development process. The Mayor has confidence in the plans, enterprise and measures taken by the head teacher and school community. Parents are involved in decisions and are very satisfied with the school.

There is also close contact with the school authority at all levels. The school is regarded as exemplary by the authority and receives support.

In-school training events are organized via the Teacher Training College. The Institut für Schule und Neue Technologie [Institute for Schools and New Technology], in conjunction with Upper Austria Education Highway, make professional advice and support available in the field of ICT, whether they be ECDL courses, Internet connection, provision of Web servers and mail servers, operation of the teaching server or organization of competitions and projects.

Pupils and teachers are motivated to tackle ICT in depth by participating in ICT-related projects and competitions (Cyberschool, U19, Museum-Online, moderegion, Museumsland-Donauland-Strudengau). The results of these and the successes the school achieves provide significant impetus for the school's development process.

Some examples:

Netd@ys 1998 was a complete success. The project was executed by the Class 4s and served to make the term "Internet" more widely known. They introduced people to the Internet by setting up computers at the Post Office, Raiffeisenbank, Erste Bank and at the school in Ried in der Riedmark, and attracted interest. Everyone who came had the opportunity to find out about the Internet. Netd@ys ran for a week.

pupils' newspaper

The editorial team scanned in over 100 photos, produced and set the copy and created the layout. They also sacrificed a great deal of free time to ensure the newspaper's success.

Web presentations

Theater im Hof: planning and design of a homepage for a classic medium (theatre)
Ried Kulturverein's³ "Kaff in Bewegung" (analysis of the Kulturverein's programme; school as an educational institution, as medium (mediator) for regional cultural institutions)

Mühlviertel and Baroque – Create a link between a secret Mühlviertel market and (secret) advanced civilization – video film

Hörig: production of a non-profit advertisement for a visually almost "intangible" teaser – how can someone be "tempted" to listen with the aid of images?

... stell dir vor es ist Religion ... – [...imagine it is religion ...]

Museum Lauriacum – Internet site for a museum

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The school has listed the obstacles in its path as the following:

- *Technophobia not taken into account (up to '90/'92)*
- *Telecommunications as completely virgin territory (up to 1996!)*
- *Expensive equipment with very short "half life" (the 286 equipment was more expensive in 1989 than the Pentium equipment 6 years later)*
- *Limited use software (up to around '95)*
- *Currently too much "edutainment software"*
- *Lack of methodical further education institutions for teaching the use of ICT in lessons*
- *Swift change of meaning in the terms "information" and "communication" in the supra-social context only very slowly infiltrating the teaching staff*

3 Kulturverein = Cultural Association

The “milestones” on our path have been

- *The pupils, their parents, teachers and political institutions*
- *The Upper Austria Regional Education Board*
- *The Education Highway (<http://www.eduhi.at>).*
- *Corporations (Microsoft; Compaq) with their educational programmes – for example Compaq offers Compaq-Capital, an interest free leasing scheme*
- *Very gradually – publishers of school books*
- *Receptive community politicians*
- *Teachers willing to commit to CPD.*

The whole school community is very satisfied with the school development process. The next goals are improved organization of teaching and teaching materials using the ElSitos learning platform that has just been installed. It facilitates collation, exchange and provision of electronic course material, submission of pupil tasks, support for communicative and co-operative working methods and provision and assessment of tests. It has been adapted for school by Bitmedia and made available free of charge for 3 years.

The ICT model will be evaluated, discussed and developed further. Findings will be exchanged and accounted for in class work. Getting to grips with and implementing the learning platform is likely to be the significant challenge for all concerned in the next year.

6 Assessment

In conjunction with community representatives, teachers, pupils and parents, a committed director initiated an ICT development process aimed at integration of ICT into as many subjects as possible. His efforts were successful. A generous community, CPD-minded teachers, and motivated pupils made a material contribution to this. The school authorities and other educational institutions provide a supportive contribution. Work is on-going on professionalization in the fields of methodology and teaching methods, as well as teaching organization. The high degree of parent satisfaction has the collateral effect of few pupils transferring from the elementary school to the surrounding Gymnasien⁴. The majority move to the local secondary school, which also leads to high performance potential. An important goal is achieving computer and media skills in all pupils. The opposite of this are schools specializing in IT that only encourage some pupils in a single subject in the field of IT and ICT.

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7 Lessons for others

Committed, visionary, pragmatic people who know how to develop a model school jointly, to instil in others enthusiasm for it, who know how to organise the necessary resources, obtain support from superior authorities and never lose sight of their goal are important for a development process of this kind. Such people are to be found in

⁴ Secondary academic schools

all the schools we visited. The bigger the school the more necessary it is to create structures for expanding such an initiative. It is easier to involve every teacher in the school development process in a school of this size (25 teachers) than in a bigger school. Investment from school maintainers is very important but inadequate. There is a need for discussion of and exchange of opinions on methodology and teaching methods, and exemplary digital teaching material that leads to independent work by the pupils. Organisation of classes with the aid of a learning platform or a learning management system is intended to assist teachers in their work.