



Directorate for Education
Centre for Educational Research and Innovation (CERI), OECD

Innovative Learning Environments (ILE)

INVENTORY CASE STUDY

Reosch

The resource-oriented school

Switzerland (Bern)

This private secondary school for grades 7 to 11 has a focus on individualized learning and uses martial arts and meditation classes as forms of “mental training” of mindfulness. Prospective students decide after a one day trial whether they want to attend the school and follow its rules, admission is not selective. The students’ learning is individualized with weekly lists of tasks that the students use to plan their learning activities in a work journal. Students reflect on their work daily, in a diary and performance is evaluated regularly, with an emphasis on individual progress and no comparison between learners. Professional development is realized with weekly peer consulting sessions.

This Innovative Learning Environment case study has been prepared specifically for the OECD/ILE project. Research has been undertaken by Anne von Gunten under the supervision of Erich Ramseier from PHBern – University of Teacher Education, following the research guidelines of the ILE project.

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Reosch

The resource-oriented school

**A Case Study of the OECD Project “Innovative
Learning Environments” (ILE)**

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Introduction

This case study¹ forms part of the project “Innovative Learning Environments” (ILE) which is directed by a team of the *Centre for Educational Research and Innovation* (CERI) of the OECD (www.oecd.org/edu/learningenvironments). The aims of this project are threefold: firstly, to gather scientific findings on effective contemporary learning and on the design of appropriate learning environments. In the context of this project, the term “learning environment” is used to denote the whole range of teaching and learning offered by a school or other educational institution. The second aim is to document a number of inspiring practice examples of such innovative learning environments in case studies like the present one. The third aim is to develop strategies for the promotion of innovative learning in order to provide a basis for educational development and reforms.

There are over 25 participating countries and regions worldwide, each with its own educational system. In Switzerland, the project participants are the cantons of Berne and Ticino. On behalf of the Department of Education, the Bernese part of the project is carried out by the PHBern University of Teacher Education. In a first step, all nine participating schools wrote a description of their learning environment using a standard form specified by the project organisers. In a second step, three out of the nine schools were chosen in agreement with the OECD to be described in more detail in a case study: the one-room school in Lindental, the Beatenberg Institute, and the Reosch School.

The Reosch is a private school situated in the centre of Berne. It is attended by roughly 90 pupils aged between 13 and 18. The school runs one class each in the grades 7 to 9 and one class in a non-compulsory tenth grade that is intended to ease the transition to an upper secondary school or a vocational training. The Reosch has a special, compensatory function within the educational system of Switzerland in that it is mainly attended by youths whose learning motivation, achievement and general situation at the public school had been dissatisfactory. Some pupils transfer to the Reosch because of problematic social behaviour. At the Reosch, many of these youths manage to reach secondary school level, either within the nine grades of compulsory schooling or at the end of the non-compulsory tenth grade offered by the school.

The organisation of the learning and the employed learning methods at the Reosch are geared to a high degree of individualisation: in weekly interviews, every pupil's learning process is individually monitored by a coach. Together with the coach, the pupils continually define their learning goals and analyse their achievement. In class, the pupils mainly work according to an individual weekly plan. For the introduction of new learning content in the main subjects, the pupils are divided into different ability groups. Depending on their needs and learning progress, the pupils can switch between these groups. Active learning techniques and independent learning are trained with the help of tools that are specifically geared to self-directed learning.

The name *Reosch* is an abbreviation of the phrase resource-oriented school, which refers to the educational ideas of Jakob Widmer, the school's founder. Discovering and using one's own resources lies at the centre his model of instruction. The Reosch uses innovative ways to foster the pupils' personal skills (*Selbstkompetenz*, i.e. 'self-competence') and social skills (*Sozialkompetenz*). Mental training, martial arts and outdoor activities are integral components of the curriculum, whereby the focus is on the youth's (self-) perception, since this is considered a prerequisite for emotional learning and content learning.

¹ The present case study was translated from the German by Lukas Rosenberger, Berne. German version: Anne von Gunten, Erich Ramseier (2012). *Reosch. Die ressourcenorientierte Schule. Eine Fallstudie im Projekt „Innovative Learning Environments“ (ILE) der OECD*. Bern: PHBern. Both versions are available from the PHBern - University of Teacher Education (www.phbern.ch/fe/ile)

A Aims and context of the Reosch

A.1 The educational system in Switzerland

Public education in Switzerland lies in the responsibility of the 26 cantons. Compulsory schooling starts at age six or seven – depending on the canton – and lasts nine years. In the canton of Berne, the pupils in grades 7 to 9 are assigned to one of two proficiency levels (called *Niveau Real* and *Niveau Sek*). Those who graduate from the most demanding school type often transfer to grammar school, where they can obtain the *Matura*, the general qualification for university entrance. The majority of those who graduate from the other school types go on to do a vocational training. In the canton of Berne, pupils may attend a non-compulsory tenth grade that is intended to ease the transition to an upper secondary school or a vocational training by supporting the youths to close educational gaps. These so-called *Brückenangebote* ('bridging offers') are provided by public schools as well as by private educational institutions.

The large majority of compulsory schooling institutions are governed and financed by the state. Pupils are allocated to schools based on their place of domicile, but it is also possible to attend private schools for compulsory schooling, provided that they are state-approved. In German-speaking Switzerland, between 2.5% and 3% of all pupils choose this option. The school fees for pupils attending a private school normally have to be raised by the parents.

A.2 The Reosch as part of the educational system

The Reosch is a private school situated in the centre of Berne. The school runs one class each in the grades 7 to 9 (compulsory schooling) and one class in a non-compulsory tenth grade (cf. section A.1).



Figure 1: The Reosch in the centre of Berne

Unlike in the rest of the canton of Berne, the usual separation into two proficiency levels for grades 7 to 9 is not made at the Reosch. In the main subjects, the pupils of one age group are instead divided into different ability groups, depending on their achievement and goals (cf. section B.7). The tenth grade is largely made up of pupils who choose the Reosch solely for this additional, non-compulsory year, since most Reosch pupils of the grades 7 to 9 manage to find a follow-up option during their time at the Reosch.

The Reosch is mainly attended by youths who were not satisfied with their achievement or general situation at the public school and who would like to reach secondary school level and qualify for upper secondary school

by the end of their nine years of compulsory schooling. In other words, the Reosch is a school for normally intelligent youths who specifically want to close educational gaps, but also for pupils displaying behavioural problems and for unruly pupils from grade 7 upwards. The pupils at the Reosch all had very different reasons for their transfer to this private school: mobbing, assault, sexual assault, disciplinary problems, and problems related to school achievement, among other things (I1: 26-30)². There are a few pupils who did not voluntarily decide to transfer to the Reosch but who were actually transferred at the instigation of the juvenile court (I5: 226). Judging from his experience in the enrolment interviews with the parents and pupils, the school's headmaster considers an "emotional

² The code in brackets refers to the interview section(s) on which the statements made in the text are based. For example, the statement above is based on sections 26-30 in interview 1. For further explanations cf. section F.1.

imbalance” to be a common denominator, i.e. the youths are at odds with themselves or with their social surroundings (I1: 28).

The Reosch is thus attended mainly by youths with negative classroom and learning experience. It is particularly striking that roughly two thirds of the pupils are male. The headmaster assumes that this is due to gender-specific behaviour, meaning that boys tend to act out their problems and thereby provoke a need for action on the part of their teachers (I1: 35).

The admission of pupils is not based on any selection criteria. After an enrolment interview and a trial day at the school, the pupils together with their parents decide whether the teaching and learning methods at the Reosch satisfy their needs. In other words, there are neither formal criteria nor entrance examinations. However, strong emphasis is placed on the pupil’s inner determination, which is indeed considered more important than the parents’ decision (I1: 28). The only restriction is class size, as the school defines a maximum of 25 pupils per grade.

The Reosch is approved by the state, yet it is not subsidised due to its small size and the fact that with 20 years of existence it is still too young for state subsidies. The school is self-financed by raising annual school fees of 10,400 Swiss Francs per pupil. The school fees normally have to be paid by the parents, but depending on the situation they may be partly paid by private foundations or public institutions (e.g., by the municipality).

The pupils at the Reosch all have highly heterogeneous social and family backgrounds. While there is no indication of a majority of youths from well-off families, there is a noticeable scarcity of pupils with a migration background. The school fees that have to be paid privately may possibly play a role in this respect (I1: 37).

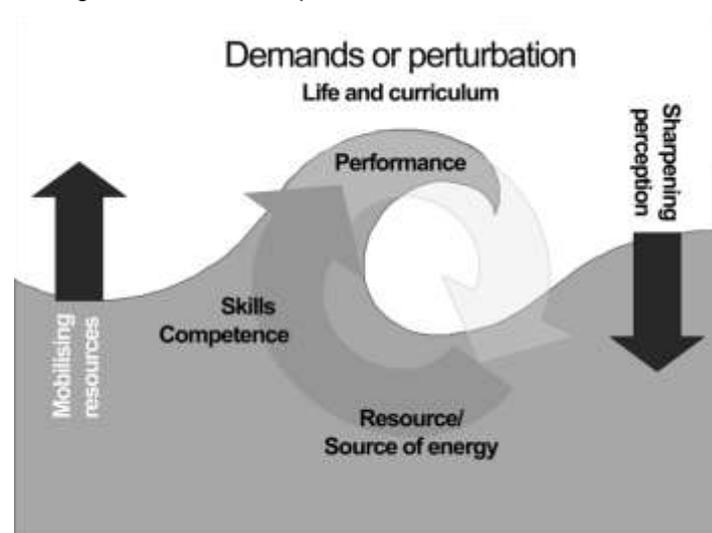
A.3 The educational concept of the Reosch

‘Resource-oriented pedagogy’ is the basis of the learning environment at the Reosch. It is a concept developed by Jakob Widmer, the school’s founder, who has described it in detail in his respective publication (cf. section F.2). In this educational concept, the focus is on the means to perform that an individual has at his or her disposal. The concept builds on the assumption that while it is impossible to influence these resources directly, learners can optimise the handling of these sources of energy for their performance through techniques of deliberate perception. According to this understanding, achievements are the result of skills and competences that are based on the learner’s resources. The experience of success through such achievements can in turn have a positive effect on the resources. In this sense, resources (or energy), skills and achievement are seen as an entity (Widmer 2011: 39).

Metaphorically speaking, performance can be described as a wave that is visible on the surface of the water and that draws its strength from the turbulences in the deep (cf. Figure 2)³.

³ This metaphor came up in the interviews and serves to illustrate Widmer’s educational ideas. In his publication (Widmer 2011), the corresponding model is occasionally backed up with scientific findings, yet it is first and foremost based on Widmer’s practical experience.

In his many years of teaching, Jakob Widmer has learnt that without deliberate training many pupils have great difficulties to perceive their resources and inhibitions accurately. However, from the point



of view of resource-oriented pedagogy this is exactly a precondition for any performance improvement. Based on these considerations, the Reosch has developed an educational concept that offers the learners suitable structures to learn how to deal sensitively with their resources: mental training (cf. section B.8), martial arts (cf. section B.9), and specifically adapted teaching methods and tools (weekly plan, working journal, and energy diary; cf. section B.5) are important elements of an educational concept that is primarily geared to holistic perception.

At the centre of this innovative learning environment is thus attentive learning or “executive attentiveness”, i.e. the ability

Figure 2: Resource-oriented teaching and learning

to consciously control one’s own attentiveness (Widmer 2011: 85). *“If we are attentive, we perceive a situation from different perspectives, we take in information that is presented as being new in this situation, we deal with the context in which we perceive the information, and we finally generate new categories through which the information can be understood”* (Widmer 2011: 69).

The teachers’ main task is to create ideal conditions for the interplay between the learners’ resources, skills and performance. The demands or perturbations with which the learners have to cope play an important role in this process (Widmer 2011: 23): the learning process can be stimulated by confronting the learners with an imbalance, a disturbance that has to be counterbalanced by the learning process. Using the metaphor introduced above, the waves can be said to turn into breaking waves once they encounter resistance. Perturbation is thereby not to be confused with energy, but a perturbation may force the energy into a certain direction.

It is particularly important not to manipulate the pupils by way of mental training or other techniques of awareness training. *“It is about triggering the pupil’s behaviour, not about controlling it. The more triggers, the more behavioural possibilities”* (Widmer 2011: 28). Teachers must refrain from suggestion or extrinsic attempts to motivate the learners, since external stimuli can result in dependence. The aim of this approach is to enable pupils to mobilise their resources even in the absence of a teacher. According to Widmer (2011: 23), children and youths do not primarily need praise but they need help in dealing with their resources and stimuli that are appropriate to their skill level.

According to resource-oriented teaching, traditional assessments of school achievement carry the risk of the learners developing inhibitions as a result of bad marks. This is why the Reosch has decided in favour of strongly individualised instruction without marks. The learning progress of each pupil is the centre of attention and is assessed, too – although this is mostly done in interviews and repeatable tests, which in turn are meant to act as perturbations that stimulate the learning process.

The Reosch largely follows the Bernese state school curriculum, and depending on the pupils’ intended career it may be quite demanding also with regard to learning content. The school’s founder acknowledges that the teachers cannot know exactly what skills and knowledge the pupils will need in the future. However, if the youths learn to mobilise their resources, they will always be on the safe side later on in life (15: 136).

A.4 On the history of the Reosch

The history of the Reosch is closely connected with the life story of the school's founder, Jakob Widmer. Initially, he had trained to become an agronomist in Denmark and had then worked as an agricultural researcher for seven years. During this time he developed the urge to become an educator, and he consequently studied educational science, history and languages at the University of Fribourg, Switzerland, and graduated as a secondary school teacher. After that, he worked as a teacher, co-author of a history textbook, and teacher trainer in the Swiss educational system for 17 years.

Over the course of time, he got interested in sensitivity and awareness training, and he did a three-year training in Sophrology⁴, which he concluded in 1995. He was interested in the ways in which mental training can be successfully used in teaching. In order to test his ideas he took a year's holiday and taught a group of tenth graders on a private basis. As one year was not enough to gain enough experience he ventured to found a school: in 1997 he resigned from his job and founded the Reosch with ten tenth graders. In the second year he had already 17 pupils, and in the third year he hired a second teacher because the number of pupils had increased to 34.

Parallel to his teaching at the Reosch, Jakob Widmer continued to gain experience in the field of meditation by attending Buddhist retreats several weeks long and by reading up on philosophy, educational science, didactics and brain research.

In 2000, the Reosch moved to a building in the Neuengasse in the centre of Berne. In this new location the school developed into its present form: it was expanded to include grades 7 to 9, and additional teachers were hired.

The Reosch had originally started out as a family enterprise: Jakob Widmer's wife Therese Widmer is in charge of accounts and administrative duties, and two of their four children – Eveline and Laurent Widmer – have been hired as teachers. At present, Jakob Widmer is preparing for retirement. He made his son Laurent Widmer headmaster of the school already five years ago. Now he aims to turn the school into a foundation and to make the school's educational concept independent of individual teachers and administrators.

⁴ Sophrology could be said to be the science of the consciousness. It is a personal development method that aims to improve mental and physical well-being through an enhanced sense of self. Source: Académie Suisse de Sophrologie, <http://www.sophro.ch/default.asp?MenuID=5394&PageID=3549> (last accessed May 22, 2011)

B Characteristics and structure of the learning environment

B.1 Time schedule of the learning environment

At the Reosch, classes start at 8.30 a.m. when the class representatives⁵ meet their teachers at the staff room and thereby signal that the pupils are ready. The usual sequence of 45-minute lessons does not exist at the Reosch, but instruction is for the largest part divided into blocks of 90 minutes each. Since the pupils organise their work independently, they can choose the pace of work that suits them best. Every school day is completed with an entry in the energy diary (cf. section B.5.2). In these final 10 minutes of every school day the pupils' attention is focused on their mental state – the emotional basis of learning.

The subjects taught at the Reosch include those commonly taught to the respective grades in public schools in Switzerland (cf. Table 1). However, since the pupils plan their work independently with the help of their working journal (cf. section B.5.1), the time table merely indicates the times when the teachers briefly introduce new learning content and when they are available for questions. In the remaining time the youths decide on their own what subject they will be working on.

The martial arts training is a fixture in the school week for all the pupils since these are mixed-age trainings (cf. section B.9). The only free afternoon is on Fridays when the weekly staff meeting or advanced trainings for the teaching staff are held.

Table 1: Timetable for grade 8 at the Reosch, 2010/11

	Mon	Tue	Wed	Thu	Fri	
08.30 – 10.00	German	English	Music	Mathematics	'Nature, man & environment'	
Recess						
10.20 – 11.50	French	Mathematics	'Nature, man & environment'	Martial arts (all grades)	German 'Nature, man & environment'	
Lunch break						
12.45 – 14.15	'Nature, man & environment'	Handicrafts	'Nature, man & environment'	French	Staff meeting	
14.15 – 15.00	German					
15.00 – 15.45						
Recess						
15.55 – 16.40		Physical education				
16.40 – 17.25						

Every school year starts with a camp where the pupils get to know each other and where most of them have their first acquaintance with mental training (cf. section B.8) and martial arts (cf. section B.9). Further special events in the school year of the Reosch are the end-of-year exams for the seventh and eighth graders (cf. section B.11.4) and the school's graduation ceremony. The ninth and tenth graders take their final exams before the summer break (cf. section B.11.5), followed by a trekking trip (cf. section B.10) where they obtain their diplomas (cf. section B.11.7).

⁵ The task of class representative is carried out by a different pupil every week.

B.2 Facilities

The Reosch is situated in a leased five-storeyed building in the centre of Berne, right next to the main station. Due to its central location, the school can easily be reached from all parts of Switzerland. Four storeys of the building have been altered to suit the school's needs, yet the premises are narrower than in other Swiss schools due to the cramped architecture of the old town building: the classrooms and corridors are narrow, and there are neither break rooms nor a schoolyard (P2; P3; P5).

B.3 The teachers' role(s)

Two teachers are responsible for every class, each of them taking care of one half of the class by establishing an close relationship to the respective pupils in the individual weekly coaching interviews (I1: 155-159). In many cases, the teacher-pupil relationship takes on a special quality because the teachers also act as mental trainers or martial arts trainers. The teachers are also responsible for the parent interviews. The parents may also demand to speak with both teachers that are in charge of their child's class. Each teacher is in charge of a maximum of 15 pupils and spends between 4 and 7 hours for coaching interviews every week in addition to teaching time. Though this may seem like a lot of time, the work thus invested pays off in the preparation of the lessons since the pupils' learning goals have already been discussed individually.

B.4 Learning targets

The Reosch largely follows the Bernese state school curriculum, though with a stronger focus on working with a weekly plan (cf. section B.6) and a working journal (cf. section B.5.1) in addition to the learning targets in the various subjects. These additional components are meant to foster self-directed learning, i.e. problem solving skills and methodological skills. Great importance is attached to the development of personal skills and social skills. To this end, the pupils have to document and reflect on their development in the energy diary (cf. section B.5.2) and they furthermore have to reach three development stages which are attested by a diploma (cf. section B.11.7).

B.5 Particular tools for teaching and learning

There are two particular, complementing learning tools that are used to reach the main goal of resource-oriented learning, i.e. to use one's own energy successfully. Firstly, there is the working journal in which the pupils focus on the content-related and self-organised components of learning, and secondly, there is the energy diary which helps the pupils to deal constructively with the emotional basis of their learning.

B.5.1 The working journal

The working journal is a pre-printed ring binder with a planning grid entitled "my decisions" for every school week. For every half-day the pupils have to copy and specify the appropriate learning goal – i.e. the scheduled task – from their weekly plan (cf. section B.6). Four columns are available for their schedule, with the following titles: 1) scheduled duration; 2) actual duration; 3) started; 4) completed. In the last column, the pupils note down their reflections on whether and why the task was – or, as the case may be, was not – successfully completed in the allotted time. The main concern here is the acquisition of methodological knowledge: how do I proceed the next time? How will I organise cooperation and how will I get the help I need? (AJ, p. 30). In other words, while the learning content is given by the weekly plan which in turn is based on the weekly coaching interviews, the work schedule and the learning path are in the responsibility of the learners.

A task is only completed once it has been recorded in the working journal (I1: 147). For pupils who are new to the Reosch it normally takes some time to get used to this rule because they consider this kind of planning and reflection unnecessary, and they soon realise that this additional task is in fact

quite challenging. Using the working journal in this way is meant to foster the pupils' ability to set goals and to realistically assess the achievement of their goals.

The working journal is the main organisation tool at the Reosch. Beyond its use as a weekly schedule (cf. section B.6) it contains the pupil's personal data, information on the Reosch diploma (cf. section B.11.7), and numerous organisation tools for the classes, e.g., an assessment sheet for the pupil's work habits, social and learning behaviour, and a list for tasks and achievement tests (cf. section B.11.3). In sum, the working journal mainly serves to provide structures for mindful learning (cf. also Widmer 2011: 73).

B.5.2 The energy diary

At the end of each day, the pupils take 10 to 15 minutes to reflect on how they felt while they were learning during that day. The teachers instruct them not to focus on what they have learnt, but on their emotions while they were learning. The pupils record their observations in a notebook called the energy diary. The aim of this energy diary is to improve the pupils' sense of self: as a first step, they try to perceive their moods and the respective triggers for these moods as accurately as possible. In a second step, they analyse what it takes – if anything at all – to improve the situation, and only in a third step they consider concrete measures to realise this improvement.

The energy diary is private, which means that neither the other pupils nor the teachers may have a look at a pupil's energy diary without his or her permission. It serves as a basis for the weekly coaching interview, i.e., it is only used in a confidential setting and it is guaranteed that the diary entries will never result in negative consequences for the pupils. Together with the working journal, the energy diary provides a basis for the planning of the next school week.

B.6 Individual work with the weekly plan

Classes at the Reosch are characterised by two main settings: either the pupils work independently with their weekly plan, or the teachers introduce new learning content to the different ability groups (cf. section B.7). The work schedule is thus determined by the pupils rather than the teachers or the timetable. Every Monday, the teacher hands out a sheet with the weekly plan that contains the tasks in the subjects German, French, English, mathematics, 'nature, man & environment', handicrafts and physical education. The pupils then plan their week by means of the working journal (cf. section B.5.1), while the teachers are available for help if necessary. Once they have completed their planning, they start working on their tasks individually.

The pupils are largely free to schedule their work as it suits them best; the learning goals for the week, on the other hand, are specified in detail and are mandatory (I4: 70). In coordination with the respective teacher, those pupils who are particularly self-reliant may even plan and work on larger modules in a subject independently over a period of several weeks (I4: 106).

B.7 Working in ability groups

In some subjects the pupils are divided into ability groups, depending on their achievement and their learning goals. The ability groups are formed separately for each subject and can be reformed whenever necessary. The number of ability groups, too, is not definite but follows the needs of each class. In the subjects mathematics, English, French and 'nature, man & environment', the tasks indicated by the weekly plan are specified for each ability group. In the subjects German, handicrafts and physical education, the goals for each week are defined for the class as a whole.



Figure 3: Working in an ability group

The relative shares of individual work, work in ability groups and plenary work differ for each subject. For example, in German the learning goals for literacy and reading are defined individually in the weekly coaching interview (cf. section B.11.2). In contrast, grammar is divided into manageable portions and is taught to the class as a whole. For the subject history, plenary work is usually preferred over individual work in order to provide the pupils with an opportunity to exercise themselves in discussion and debate.

At the beginning of each week the teachers announce the time slots for teacher inputs in the ability groups, though these time slots are negotiable. If the pupils have not yet finished their previous tasks and it is consequently inconvenient for them to move on to new content, these teacher inputs may be postponed.

B.8 Mental training: perception as a resource

The term mental training stands for a range of different trainings and techniques, from concentration exercises to meditation. Widmer (2011: 84 f.) uses this term because it is so open, and he names the findings of modern brain research and the tradition of the Vipassana meditation as the bases for his mental training. The Reosch makes a point of distancing itself from traditions of esoteric origin or from methods that make use of manipulations that might lead to addiction. According to the Reosch's educational concept, mental training is a method to become mindful of your body and your environment. By learning to use mental training to focus on themselves, the pupils learn to actively guide their attention. Widmer (2011: 85) calls this key competency "executive attentiveness", and he stresses that educational success is not the primary goal of the mental training. Achievement results from awareness, self-directedness and the ability to make decision (Widmer 2011: 161).

The mental trainings at the Reosch are done in either a standing, sitting or supine position, and they last between 5 and 15 minutes. There are 2 to 4 trainings during class every week, and a more extensive mental training lasting 30 to 45 minutes can be attended voluntarily once a week after class. A special training room is available for this extra training (cf. Figure 4) (cf. also Widmer 2011: 105).



Figure 4: Mental training in a supine position

In these trainings it is vital for the pupils to be able to concentrate on themselves and not to interact with anybody else, neither by talking nor through eye contact. Therefore, every pupil chooses a spot in the classroom at the beginning of the mental training, e.g., with a blanket on the floor. Subsequently, the teacher who acts as the mental trainer instructs the youths. Widmer (2011: 108) requires that the trainer's voice should sound normal and not detached. A typical exercise is the one called "I trust myself" (cf. Widmer

2011: 164-167):

“1. I close my eyes and sit upright. My back is free, not leaning against anything. My hands rest on my thighs. My whole body is relaxed, only my back muscles are slightly tense to keep my position upright. 2. I concentrate on my body. I can feel my face to be free of wrinkles, my facial muscles are that relaxed. 3. I feel my shoulders, their width. Then my upper arms left and right, my forearms, hands and fingers. I concentrate on my hands touching my thighs for a moment. 4. Now I concentrate on my breathing. I observe without judgment. It is neither good nor bad, I simply feel my abdominal wall moving. If I have difficulty concentrating, I can slightly influence my breathing. My concentration can become very easy, without a lot of effort.”

Concentrating on one's breathing plays a key role in the mental training at the Reosch, just like in Vipassana meditation (cf. Widmer 2011: 85). Based on the “wheel of awareness” (cf. Siegel 2007: 105ff.), Widmer focuses on eight different aspects of awareness experience with his mental trainings:



Figure 5: Mental training in a sitting position

1. seeing, 2. hearing, 3. smelling, 4. touching, 5. tasting, 6. perceiving one's body, 7. experiencing thoughts, feelings, images, memories, beliefs and intentions, 8. experiencing one's environment (cf. Widmer 2011: 83). The trainings are always structured similarly and thus have a ritual-like character, which gives the youths a sense of security and orientation (cf. Widmer 2011: 89).

It is mainly youths from families that repress severe psycho-social conflicts who have difficulty with the mental trainings. They find it particularly difficult if they are asked to get to the bottom of emotional strains. If a pupil's behaviour of repressing emotions and conflicts is too deeply embedded to be changed, he or she might even drop out of the Reosch (I1: 160). For most youths at the Reosch, however, the mental training opens up a new way of coping with deep-reaching emotional

problems. Drug use is particularly incompatible with the mental training at the Reosch, because alcohol and cannabis distort one's self-perception and dampen the experiencing of emotions. The teachers at the Reosch therefore make a point of checking whether the pupils adhere to the school rules (I1: 160).

The pupils' most common difficulty in the mental trainings is not to let the mind wander or fall asleep (I4: 211). Some pupils report that their intensive attempts to concentrate on themselves have sometimes led to nausea, which is why they don't close their eyes anymore in the mental trainings (I4: 201).

When talking to the pupils it becomes obvious that many find it rather difficult to talk about their experiences in the mental trainings because it is considered 'uncool' in the peer group (I4: 226-227, 252). Interestingly enough, the youths are very much aware of the reason for this reluctance and they assume this to be the reason why many of them will not freely acknowledge that they actually profit from the mental training. One pupil describes the effects of the mental training as follows: *“Well, I never felt anything during the mental training, only afterwards. Sometimes I'm able to accomplish more afterwards, somehow. I advance quicker, sort of. But if I let myself be distracted during the mental training and fool around, I will never be able to achieve my usual performance”* (I4: 189).

B.9 Martial arts: overcoming inner and outer resistance

Much importance is attached to the martial arts at the Reosch because of their marked relation to the school's educational concept; indeed, the martial arts are considered a teaching and learning method in their own right. By training hard, the youths increase their agility, coordination, strength and endurance, but like the mental trainings the martial arts also include meditation, concentration and breathing exercises. The youths thus learn to cope with force and counterforce, with inner and outer resistance, both physically and mentally.

Widmer states that life often involves challenges and he considers any attempt to adapt to the environment as a learning process that not always runs smoothly: “*To face reality may involve a struggle*” (2011: 111). This is particularly true for the pupils at the Reosch. Negative school experiences or conflicts in their family or at their school have in many cases resulted in them dropping out of the state school. Many youths have consequently developed mental blockages and a tendency to avoid challenges at school (I1: 180).



Figure 6: Practising motion sequences

From the perspective of resource-oriented pedagogy, the martial arts constitute a way of learning that suits the youths’ needs well: the youths are challenged by contact situations in which they have to react fast, both physically and mentally. The fast motion sequences that are directed towards an opponent help them to improve their decisiveness.

At the Reosch the martial arts classes are not offered as an alternative to physical education classes but they are a subject in their own right and an integral component of the programme for both teachers and pupils (cf. Table 1). The martial arts trainings take place Thursday from 10.20 to 11.50 a.m. The headmaster is the only member of staff who is a trained martial artist and who conducts one of the trainings (cf. Table 2). All the other members of staff attend the trainings just like the pupils. The Reosch cooperates with three martial arts schools in Berne, which means that most of the trainings take place in external facilities and are conducted by recognised martial arts masters (cf. Table 2).

At the beginning of every school year the four martial arts schools demonstrate some of their training sequences, and after these trial training sessions the pupils settle for one of the martial arts styles. Although the ideological bases of the four schools are similar (I1: 189), there are still differences in their approaches: the pupils may choose between a rather pugnacious, a more acrobatic, more playful, or more aesthetic style.

Care is taken to make sure that the martial arts trainings are conducted by two men and two women in order to cater to gender-specific differences. The boys mostly choose the more pugnacious martial arts style, while the girls usually go for the more aesthetic style.

Table 2: Martial arts styles taught at the Reosch

Martial arts school	Trainer	Style	Homepage
International Scientific Wushu Society	Laurent Widmer (headmaster)	Kung-Fu & Chi Gong	n/a
Zhong Hua Wushu Guan	Siugün Xie	Kung-Fu & Chi Gong	www.wushubern.ch
Chinasportschule Bern	Jing Lianzhen	Kung-Fu & Chi Gong	www.chinasportschule.ch
Aikidoschule Bern	Renata Jovic	Aikido	www.aikidoschulebern.ch

Once the youths have chosen a martial arts style they stick to it throughout their time at the Reosch. This way of mixed-age learning is primarily due to organisational reasons, but it also has the benefit of establishing contacts between the youths beyond their respective grade. Furthermore, the headmaster asserts that particular social and physical challenges are posed by martial arts exercises that are done jointly by seventh to tenth graders (I1: 189).

The martial arts trainings have a much better image for the pupils than the mental trainings since they are not considered ‘uncool’. It also seems much easier for the pupils to talk about the martial arts trainings (I4: 336-342).

Three of the trainings include Kung Fu and Chi Gong (cf. Table 2). The name Kung Fu is used as an umbrella term for the numerous Chinese martial arts styles; it originally means *expertise in any skill achieved through hard work and practice*⁶. Chi Gong is an umbrella term for Chinese meditation, concentration, breathing and body movement exercises, and it means *to work with life energy*⁷. With these translations, the connection of martial arts to the resource-oriented approach becomes obvious (cf. section A.3).

The Kung Fu and Chi Gong trainings are based on force and fight principles most of which are plain and simply formulated, yet it takes hard physical and mental work to observe them. An example of such a principle goes like this: *Use the force of your opponent*. Widmer (2011: 115 f.) describes the youths' mental development on their way to this goal as follows: *"I have to be able to judge my opponent in order to guess what he will do next. I have to watch him, put myself in his position, and of course I can achieve this best if I can relate positively to him. If I can do this, I have an advantage over my opponent, but then again I surely don't want to hurt someone I can relate to. I just disarm him, nothing more. This also shows that the martial arts are not about aggression, not in the very least."*

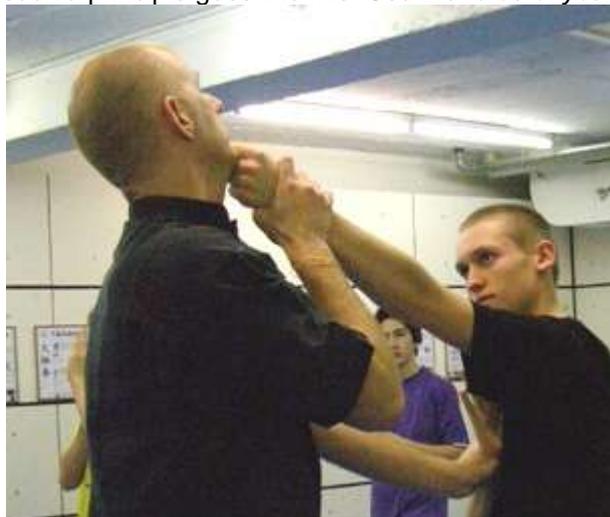


Figure 7: Dealing with your own and your opponent's force

have to learn not to strike but to let it pass. It is a matter of throwing and being thrown. And with a training group consisting of seventh to tenth graders, there's virtually everything from 40 to 115 kilogrammes. And this obviously requires discipline and respect, in all of the groups" (11: 189).

In the fourth martial arts school the pupils are taught Aikido. Aikido was developed out of the traditional Japanese martial arts; its aim is a non-fight by deflecting the opponent's energy.

According to the headmaster, the focus is on harmony and playful elements rather than on striking: *"When someone approaches you, you*

B.10 Trekking trips as a means to develop personal and social skills

As early as in the enrolment interview the pupils are informed that the ninth and tenth grade at the Reosch are completed with a two-week trekking trip. The third stage of the Reosch diploma (cf. section B.11.7) can only be reached if the pupils participate in this trip. This diploma certifies the pupils' progress in emotional learning (cf. Widmer 2011: 119): the accompanying teachers observe the pupils with regard to their self-motivation and their behaviour in the group, i.e., the focus clearly is on personal and social skills.

The physical and mental preparations for the trekking trip start in grade 7. To this end, the pupils go on several two-day and three-day hikes every year (11: 84). In grade 8, they already cover up to 80 kilometres in a three-day hike. All the hikes take place irrespective of the weather, and the participants either camp out or sleep in forest huts. Throughout their time at the Reosch, the pupils systematically train their fitness and endurance with outdoor activities in addition to the regular physical education and martial arts lessons. Furthermore, after the hikes the pupils analyse what resistances they encountered and what mental strategies were used to overcome them.

⁶ Cf. <http://de.academic.ru/dic.nsf/dewiki/805195> (last accessed July 12, 2011)

⁷ Cf. <http://www.berlin.de/vhs/kurse/gesundheit/quigong.html> (last accessed July 12, 2011)

As a part of the preparation, the pupils have to get together the money for the trekking trip themselves, e.g., by doing a charity run. Depending on the sum of money collected the trekking trip will take them either over some nearby mountains in Switzerland or over a mountain in the Pyrenees.

In the beginning of the hikes the youths' motivation is usually good because they prefer being outside to being in the classroom. Over time, however, their enthusiasm dwindles: *"They begin to feel the miles in their legs, and they have to slow their pace. To help the weaker pupils, to get slower, to be patient, all of this starts to become a challenge"* (Widmer 2011: 134).

The headmaster explains why a mountain is usually chosen for the trekking trips: *"Last year, we were in the Pyrenees. There you face a mountain peak: 3000 metres high. We're still in flat country and we know: this is the climb. And the mean thing is that you can see the sea on the other side, that's where we're heading. In ten days we'll be lying on the beach. Brutal. Most of them have never ever done anything like that. And they ask themselves: How can you actually climb this mountain? And what sense does it make? Why am I even doing this? [...] And we keep telling them that this mountain may be the only mountain they will ever climb in their lives, but it is just a symbol of all the mountains waiting for them. Do we go for it? Will you tackle this now or not?"* (I1: 78).



Figure 8: On a trekking trip in the mountains

According to the headmaster, the happiness the youths feel on the mountain peak before they descend and have a short holiday at the sea is what makes the trekking trip not just some fancy leisure-time activity but a true challenge: *"The feeling they have up there is terrific for everyone. I think this reflects what this is all about. They face a challenge – without their parents' help. They have to reach the sea together with the group. There are no shortcuts: first, there's the mountain, afterwards, there's the sea. And so they see the connection between mountain and sea, that is, between effort and satisfaction. It doesn't get any more obvious than this"* (I1: 79).

B.11 Assessment of learning achievement

B.11.1 Doing away with marks – avoiding any reference to the standard

From the perspective of resource-oriented pedagogy, assessments of learning achievement make sense only in their function as appeals: the assessments should be usable as learning aids by prompting the pupils to act in a certain way. Even though a four-level scale is used for achievement tests and school reports at the Reosch (cf. section B.11.7), the crucial point for both the school's founder and the headmaster is that the teachers avoid any selective attitude (I5: 119; I1: 218). The assessment of learning achievement at the Reosch focuses on the individual pupil's development, and all assessments relate to this process instead of a standard or general norm (I1: 128-134).

In the interviews, the pupils state that they experienced the Reosch's grading system more positively than the traditional grading system used in public schools. They appreciate in particular that they are not judged against the class average but that it is their individual progress that counts (I4: 411, 424). The only negative point they mention is that the absence of traditional marks can be a problem once they are looking for an apprenticeship position because such marks are still required by the training firms (I4: 428). If it becomes apparent that the Reosch's grading system could result in a disadvantage for a particular pupil, the responsible teacher personally explains the grading system to the prospective apprenticeship trainer. During the school's existence roughly 100 such interviews have been conducted so far, and in most cases the explanations were appreciated by the apprenticeship trainers. There have only been three cases where the Reosch made the exception of giving traditional marks in order to clarify the learning achievement of the respective pupils. However,

if an apprenticeship trainer requests marks just for the purpose of being on safe ground, the Reosch persists in refraining from giving marks⁸.

B.11.2 The weekly coaching interview

The weekly coaching interview is a central instrument for the educational support of the pupils at the Reosch and is valued more highly than, e.g., the achievement tests (cf. section B.11.7) because in the regular face-to-face contact the relationship between the pupil and his or her responsible teacher is deepened, and the coaching interview thus serves to “take a closer look” (I1: 27). Anything that can possibly keep the youths from mobilising their strength according to the resource-oriented approach is discussed in these interviews. Once a week the pupils discuss individual (learning) strategies for the next week, based on their entries in the energy diary and the working journal. This discussion focuses not so much on the pupil’s achievements of the past week but on possible disruptions of his or her energy balance. For example, if a pupil never hits his stride on Monday mornings the coaching interview may serve to determine the underlying reasons and to discuss possible behaviour modifications – even if these modifications extend beyond the school week, e.g., relating to the pupil’s sleep rhythm on weekends (Widmer 2011: 131-133).

B.11.3 Assessments of learning success

Assessments are announced in the weekly plan, yet these assessments differ in many ways from the tests at other Swiss schools. First of all, results are not expressed by a traditional mark but on a four-level scale, the levels being *excelled – fulfilled well – fulfilled – not yet fulfilled* (AJ, p. 12). Furthermore, the pupils first check and mark their assessments of learning success on their own, and the teachers check the assessments only in a second step. The teachers then confirm the completion of the assessments by their signature. The comparison of self-assessment and teacher’s assessment helps the pupils develop a differentiated perception and evaluation of their own achievements, which is an important element of resource-oriented learning (I1: 47). Moreover, the assessments can be repeated several times (I1: 130, 218), which clearly shows that they are not used for selective purposes. Their main aim is indeed to provide information on the pupils’ learning progress.

B.11.4 End-of-year exams in grades 7 and 8

At the end of grades 7 and 8 there are the end-of-year exams in the main subjects and in ‘nature, man & environment’. These exams are both oral and written. If a pupil does well, the respective exam is mentioned in the school report, otherwise it is left unmentioned. These end-of-year exams serve to prepare the pupils for their decisive final exams (I1: 220).

B.11.5 Final exams in grades 9 and 10

The only selective test at the Reosch takes place at the end of grades 9 and 10 respectively. The result of this final exam decides whether the pupil will be attested to have reached secondary school level, or whether they have only reached the *Niveau Real*, i.e., the lower one of the two proficiency levels (cf. section A.1) (I1: 224).

B.11.6 School reports

At the end of each term, the pupils receive a school report. At the end of the first term (i.e., in the middle of the school year), the teachers put down their observations on the pupils’ learning progress in a written report. At the end of the second semester (i.e., at the end of the school year), the pupils’ achievements in the subjects are assessed on a four-level scale with the levels *very good – good – fulfilled – not fulfilled* (I1: 220).

⁸ Laurent Widmer (headmaster), personal communication, November 14, 2011.

B.11.7 Diploma levels 1-3: personal and social skills

At upper school level, Swiss schools have traditionally focused on knowledge in the subjects. The so-called Reosch diploma was developed in order to lend more weight to the pupils' development of personal and social skills in the assessments of learning achievement. There are three consecutive levels the youths can reach, whose focus gradually moves from personal skills to social skills (I1: 226):

"Diploma level 1: The pupil strives to improve his or her perception, concentration, endurance, imagination, health awareness and ability to work under pressure, and these efforts have already met with success. The respective abilities are observed and assessed in the mental trainings, in the martial arts trainings and during classes. The pupil and his or her coach discuss their experiences in the coaching interviews.

Diploma level 2: The pupil is able to adjust to a group and is aware of the importance of this ability. The pupil keeps working on his or her ability to perceive others, to respond positively to criticism, to cope with emotions, and is willing to overcome resistances. These abilities can be observed in class, in the martial arts trainings and on group occasions. The pupil and his or her coach discuss their experiences in the coaching interviews.

Diploma level 3: The pupil considers himself or herself as an active participant in the group. He or she is able to inspire and guide the group and has negotiating skills. These abilities are observed and assessed in class, during the preparation of school occasions (camps, barbecues, night hikes etc.), and on the trekking trip. Active participation in the two-week trekking trip is a prerequisite for achievement of the third diploma (at the end of grade 9 or 10)." (AJ, p. 5)

To attest the pupils' development of certain skills is only a secondary aim of the diploma; its primary aim is to initiate social and emotional learning processes. While the diploma is not mandatory, there are only very few pupils at the Reosch who do not strive for it. According to the teachers it is mainly pupils who have difficulties facing their own emotional weaknesses that do not intend to gain the diploma (I1: 228).

The diploma is meant to show the pupils what will be expected of them in their future work life. As the headmaster puts it, "*this will rarely be a question of Real or Sek later on. It's much more a question of your attitude to work. What's your thinking, what's your appearance? In these respects we can initiate a lot with the diploma. To what extent this will be relevant in an application is of course difficult for us to judge*" (I1: 139).

B.12 Cooperation with the parents

Before the youths are enrolled at the Reosch, their parents are informed about the educational concept and the normal procedures at the Reosch. If the cooperation with the parents is to be successful – which is decisive for the youths' educational success – the two systems school and family have to be compatible with each other. The headmaster stresses that this compatibility is not merely a question of rational content but also, e.g., of the way in which emotional challenges are dealt with (I1: 261). Since the youths and their parents choose the Reosch out of their own free will and since a lot of time is invested in parent cooperation in the beginning, this cooperation normally works very well.

B.13 The teachers at the Reosch

At the time this data was collected, seven teachers and one teacher trainee were employed for the four grades (roughly 90 pupils) at the Reosch; their combined workload adds up to slightly more than five full time jobs. Six lessons per week are taught by external martial arts teachers. In addition, staff includes a cleaner, one person who is employed for accounting and administrative duties, and someone who supports the headmaster in advertising and supporting the school's website.

For the employment of new staff it is normally required that the teachers have a state-approved teaching diploma. The school's founder and one of the currently employed teachers are trained mental trainers. The headmaster is a trained martial artist (Kung Fu and Chi Gong). While the teachers are not required to be trained in these domains, they are expected to be willing to practise mental training and martial arts (I1: 164).

Friday afternoons are reserved for the staff meetings, which are mainly used to discuss the day-to-day business, e.g., joint strategies to support specific pupils, topics concerning the content of the school subjects or organisational issues. This time slot is furthermore used for advanced trainings for the teaching staff, which include joint mental trainings or discussions concerning the teachers' shared educational attitude as a team building measure. The topics of these advanced trainings may thus go beyond purely job-related concerns (I1: 90).

B.14 Networks

So far the Reosch is not part of any educational or political network. For one thing, all of the teachers' time is used for preparing and teaching classes. Furthermore, the school has not needed any external support so far. Throughout its existence it has hardly been necessary for the Reosch to invest in advertising as their classrooms have always been full based on word-of-mouth marketing alone. However, the headmaster and the school's founder plan to do more PR work in the future and to intensify their contacts with schools that have similar pedagogical goals (I5: 284).

C The nature and quality of the learning

This chapter presents the characteristics and the quality of the learning at the Reosch from different points of view, following the characteristics of innovative learning environments as formulated in the theoretical part of the OECD project “Innovative Learning Environments” (Istance & Dumont 2010: 317-325): the innovative learning environment

- promotes connections between the different subjects and activities at school and connects learning at school with out-of-school events (section C.1);
- is highly attuned to the learners’ motivations (section C.2) and takes the importance of emotions into consideration (section C.3);
- is acutely sensitive to individual differences, including differences in prior knowledge (section C.4);
- uses assessments that are consistent with the learning goals, with strong emphasis on formative feedback (section C.5);
- considers the learners as the most important actors, encourages their active engagement and develops in them an understanding of their own activity as learners (section C.6);
- is demanding for each learner but without excessive overload (section C.7);
- takes the social nature of learning into consideration and encourages co-operative learning (section C.8).

Learning environments of this type foster the development of subject-specific competencies as well as cross-curricular competencies, which are essential in today’s fast changing society (Istance & Dumont 2010: 330).

The characteristics listed above each represent a specific focus, yet they are closely interrelated. Many topics can therefore be examined in relation to more than one of these characteristics. The order of the criteria in this list is a result of the importance attached to these criteria in the interviews conducted for the present case study, and it therefore differs from the original order. Furthermore, the influences of motivation and emotion on the learning process are treated as criteria in their own right.

C.1 Connected learning – learning to connect

The headmaster emphasises that the educational concept of the Reosch is holistic in the sense that the single instructional elements cannot be separated (I1: 256): instruction in the subjects, mental training, martial arts and outdoor activities are closely interrelated. Since all these forms of learning are based on the same set of educational principles they constitute a system. There are certain demands that are made on the pupils in every learning opportunity at the Reosch and that therefore make the pupils recognise the gist of the overarching learning goals: “*Take a close look!*” (I1: 27; I5: 103) is one of the basic principles that holds for every learning and teaching activity at the Reosch and that relates directly to the core of resource-oriented pedagogy, for both emotional and content learning.

Classes in the subjects are usually held in blocks of 90 minutes, which are purposefully interrupted by short mental trainings that are intended to aid the pupils’ concentration. The mental training is thus used as a deliberate strategy: the pupils learn to relax and to focus at the same time, which helps them to block out disturbing stimuli in order to be able to concentrate on selected contents and emotions. The mental training is not practiced for its own sake but is taught as one of a number of useful strategies.

Just like the mental training, the martial arts trainings aim to bring out the pupils' potential and to overcome their inhibitions through the purposeful use of physical and mental forces and through the establishment of inner balance. In contrast to the mental training, where everyone focuses on himself



Figure 9: Concentration during the martial arts training

or herself, the martial arts training is more interactive and involves more physical action. Yet, these two disciplines are also complementary: *“Martial arts and mental training – there is a relation like tension and relaxation. They complement each other. The martial arts meet the pupils where they are, in their physical existence, in the tension, in the encounter, but it guides them to what the mental training really is, namely to themselves”* (I1: 177).

The headmaster and the school's founder consider the intensive physical activity in the martial arts trainings as a special opportunity for the pupils (I1: 186): they notice that resistances or disappointments at school result in resignation more quickly than this is the case in sports. If the pupils overcome resistances and perform strongly

in the martial arts, this experience may be transferred to learning at school.

When asked whether the martial arts training has an effect on her learning at school, one of the eighth graders answered: *“I certainly profit with regard to concentration. I mean, in the martial arts you have to concentrate on yourself, on your movements. And at school this is exactly the same: you have to concentrate on yourself and on your work”* (I4: 319).

In the interview, the headmaster explains to what degree the martial arts training is integrated in the educational system of the Reosch: *“If we used ‘chalk and talk’ teaching all week and then added some martial arts, that would be absolutely pointless. I worked in projects in state schools where martial arts were taught as a compulsory subject for one year. It was utterly pointless. There was no reflection. It’s important to reflect and guide the experiences made in the martial arts – and to pull them together. If this isn’t done, it’s no use.”* (I1: 182).

C.2 Learning motivation – a question of mental attitude

It is against the educational attitude of the Reosch if teachers try to get across learning content in a way that is fun to the pupils (I1: 70). In fact, one of the particularly important abilities the pupils have to learn at the Reosch is the ability to complete a task even if they are not really in the mood for it. This is seen as an important aspect in the preparation for the world of work and is stressed by the school's founder by ironically describing attempts at motivating the pupils in class as an *“act of desperation on the part of the teacher”* (I5: 172). He considers it much more important to enable the youths to become aware of their discontent and emotional imbalances that result from a feeling of not being able to comply with the requirements of society (I1: 69). In the eyes of the school's founder it is a crucial success if the pupils are willing to work because of this insight, even if it is no fun to them at the moment. If the pupils then meet with success this is worth much more and it affects their working and learning habits by boosting their intrinsic motivation (I1: 76). Both the headmaster and the school's founder think that the pupils' positive attitude towards challenges should be fostered and that their dependency on external stimuli should be prevented. The teachers' main task is thus not to motivate the pupils but to see to it that the pupils are not demotivated because of demands that are too high. The underlying idea is that if high – but not unrealistic – demands are made and the pupils are able to cope with them, intrinsic motivation will develop automatically (I5: 135).

How to cope with inner resistance and negative emotions in the face of great efforts and challenges is a topic that comes up in many contexts. Using the trekking trips as an example, the headmaster



Figure 10: Cresting as a group

describes how success has a particularly lasting effect if it is earned the hard way: *“In the beginning, resistance prevailed: what’s the point of all this hiking? The parents had been against it, too: it’s a loss of classroom time. But no one questions it any longer. Now they know that it’s not about a lust for hiking but about a sense of achievement, a feeling of success. And it’s not a virtual feeling, but one you really feel – sore muscles and all. And you did it. Yes, and that takes all you’ve got”* (11: 84).

In the interview, one of the pupils very graphically describes how he managed to adapt his mental attitude by means of the martial arts strength training: *“I feel that I progress not only physically but also in other ways. You simply start thinking*

differently. How should I explain? Well, somehow it’s true what the trainer says: the martial arts training trains you mentally and the mental training trains you physically. I just think that the martial arts train you more mentally. It’s a preparation for such situations where you have to do too much. If you then think ‘50 push ups! I’ll never manage!’ it helps you to breathe calmly, and you think ‘I want to do it. And I’ll manage.’ And so I make progress. In the past I would have said ‘30 sit ups! What?! I’m beat-up after 10.’ And I would have had to give up after only five because my entire body would have been clenched” (14: 294). Later on in the interview he takes up the strength training again and explains how his new attitude has helped him in French: *“Well, I think it’s incredible how you can progress just because of a mental development. For example, if I receive a French test now with 6 sheets and 72 verbs, I no longer think ‘bloody hell, I can’t do this, it’s way too much, I only know 36 of them’, but instead I just do it”* (14: 320).

C.3 Including the pupils’ emotions in their learning

Since problems at school often have an emotional cause, the teachers can use their pupils’ entries in the energy diary to get a picture of their situation and to check with them in the coaching interview (Widmer 2011: 76). This way it is possible to detect and take up issues that might inhibit the pupils in some way. By seriously dealing with their experiences, the pupils may initiate (learning) processes that help them on.

The pupils have to learn how to use the energy diary: while it poses no more problems to experienced pupils, the inexperienced ones need help by their teacher. The headmaster provides the following example: *“At the worst they merely write: Today was shit. Full stop. So then it’s our job to specify that diagnosis”* (11: 122).

When talking to the youths it becomes evident that they assess the use of the energy diary very differently. This may be due to the fact that there are considerable differences in their ability to cope with conflicts and emotional stress. Some of the youths consider this daily introspection unnecessary (14: 149-163), while others appreciate mainly their teacher’s handling of the diary entries: *“If you write something down in the energy diary you can let it go. The things that keep troubling you are discussed and taken seriously. And to me, that’s what makes it different from a state school. If you say something there, maybe someone will listen, but it won’t get discussed properly. Maybe the teachers don’t have time for it. But at the Reosch you can write something in your energy diary and it will be read. And then they’ll keep digging deeper until a solution is found”* (14: 148).

C.4 Individualised learning

The whole concept of the Reosch is geared towards individualisation, which can be gleaned from various aspects that have already been mentioned: the pupils organise the work with the weekly plan independently by means of their working journal, which allow them to work at their own pace. Depending on their individual progress in the various subjects the pupils may switch between the respective ability groups. And even though learning assessments are mandatory, they can be repeated several times.

While the pupils' assignment into different ability groups results in an internal differentiation, the traditional system with age-based grades is upheld. In other words, there is no systematic use of mixed-age learning groups at the Reosch.

The pupils' learning goals are determined individually in the weekly coaching interviews (cf. section B.11.2). The teacher takes into consideration not only the completion of the tasks as recorded in the working journal but also the youths' mental state as noted down in the energy diary. In these coaching interviews, the learning goals are thus adapted according to the pupil's intended career but also to his or her available resources (I1: 149). If a pupil over a longer period of time has emotional difficulties with the demands made on him or her, this may be taken as a reason to reduce pressure.

The teachers stress that the weekly learning goals that follow the Bernese state school curriculum are mandatory. This is to avoid arbitrariness and to ensure that the curriculum is demanding with regard to learning content. The youths are deliberately and purposefully challenged – especially because some of them tend to avoid challenges (I1: 180).

The pupils are given a lot of freedom especially with the planning of their work schedule. Individualisation at the Reosch reaches its limits, however, when the teachers provide mandatory learning goals in the weekly plan⁹.

C.5 Providing effective feedback

The pupils at the Reosch receive feedback on their learning progress in different ways: in addition to learning assessments, school reports and the Reosch diploma, the weekly coaching interview is considered very important because a special function is ascribed to the relationship between the pupil and his or her responsible teacher (I1: 152-159). A teacher has to know his or her fosterling well in order to decide whether the pupil is unable to cope and whether the learning goals have to be adapted accordingly to avoid discouragement on the part of the pupil. The teachers therefore stay in close contact with the pupils, discussing the demands that are made on them, their learning progress and also emotional processes. It is important that the pupil looks upon the responsible teacher as a person of trust, as the topics discussed in the coaching interviews are treated confidentially. Furthermore, the teachers act as learning coaches for the pupils they are responsible for insofar as they discuss and practice learning strategies with them.

The following statement by a pupil from the Reosch shows that the youths appreciate the fact that their individual progress is observed: *“Here the teachers don't simply go like ‘ok, you've got that many points – bang, there's your mark.’ Instead, they really consider how far you've progressed, how much you've achieved with the means you have. Sure, some may make zero mistakes, others make 10 mistakes. But because the first one remained constant and the second one had made 20 mistakes before, he may also get an ‘excellent’, just because he has improved that much”* (I4: 411).

⁹ One of the other schools described in a case study for the ILE project is the Beatenberg Institute in the canton of Berne, Switzerland. With regard to the pupils' co-determination of learning goals, this school goes one step further than the Reosch in that the pupils are expected to define their learning contents with the help of skills matrices, in coordination with their personal coach but independent of the state school curriculum.

C.6 Self-directed learning

With the weekly plan (cf. section B.6) and the working journal (cf. section B.5.1), instruction at the Reosch is fundamentally based on self-directed learning. According to the pupils, working with a



Figure 11: Concentration through mental training

weekly plan functions well, though it usually takes them a while to get used to this working method (I4: 37-43). However, they also mention some well-known problems: for those pupils who are not overly motivated this method does not generate enough pressure to keep them working every day, which means that they often complete their tasks either too late or not at all (I4: 93). In addition, the pupils have to learn not to be distracted by the introduction of new learning content in the ability groups (cf. section B.7) that takes place parallel to their individual work, though they are usually given the opportunity to move

to a quiet room in these situations (I4: 112-114).

One of the pupils describes the benefits of self-directed learning as follows: *“Like this you already learn for later life. You can actually tell yourself what to do now and what not. For example, if there’s always someone telling you ‘first you do this, then you do that’ – there won’t be anyone like that later on any more, and then it’s gonna be much more difficult. It’s a preparation for the future”* (I4: 87).

A particularly innovative aspect of the Reosch’s educational concept is the fact that self-directedness comes in at a very basic level. At the beginning of the pupils’ time at the Reosch, the ability to learn self-directedly is only a long-term objective. Prior to their enrolment at the Reosch, most pupils had experienced a history of educational failure and disappointment, and they first of all have to learn how to focus. In order to be able to work on a task alone and over a longer period of time they need to have peace of mind and they have to be able to put up with themselves and their task. Since many pupils lack these abilities when they enter the Reosch, the mental training addresses this specifically: with the help of the mental trainer the youths acquire relaxation and focussing techniques. These techniques involve heightened self-awareness as well as purposeful body control. The intention is to enable the youths to control their breathing, tensing of the muscles and mental attitude without any external help or guidance later on. In the mental training they thus acquire strategies with which they can put themselves in a state where they are able to learn.

C.7 Reasonable demands

At the Reosch, the pupils’ learning goals are adapted to both the pupil’s available resources and their intended career. The pupils decide on their own how much time and energy they want to spend on each subject. In the coaching interviews and in the working journal they receive the necessary instructions: *“Please note down the appropriate subjects below the following headings. It is a ranking according to importance. The point is not how well you do in these subjects but how much energy you want to spend. High Speed – Speed – Normal – Unimportant”* (AJ, p. 3).

The crucial point is what certificate is needed for a pupil’s intended career. As this is a topic that is intensely discussed in the coaching interviews, the pupils’ exam performance is hardly ever a surprise – they have been working towards these exams for a long time (I1: 224).

As the introduction of new learning content during classes takes place in the ability groups, it is possible to continually adapt the demands for each pupil individually. If someone is underchallenged or unable to cope, they may bring it up in the coaching interview and – after consultation with the responsible teacher – transfer to a different ability group (cf. section B.7).

The headmaster tells the success story of a Reosch pupil with dyslexia to illustrate the advantage of individually adapted learning programmes. This pupil was interested to become an electrician, and his subjects were weighted accordingly. As the headmaster makes clear, this did not mean that the languages were left out, but there the tasks were merely divided into smaller portions. Despite his linguistic problem the pupil not only managed to do the intended apprenticeship but he now successfully works as a professional electrician (I1: 150).

C.8 Learning as a social process

Working with the weekly plan involves the aspect of social learning, too, since this kind of independent working allows for other pupils to help, but it also requires the ability to keep to oneself. Basically, the pupils are encouraged to help each other, yet depending on the amount of discipline in class the teacher often needs to intervene (I4: 117-119). Certain pupils have been instructed to ask the teacher prior to addressing other pupils when they encounter difficulties in their work with the weekly plan. In the group interview it became clear that the youths differ strongly in their ability to deal with distractions (I4: 117-122).

One important aspect of social learning is how to resolve conflicts in class. In the interviews it has been made clear that the Reosch has a difficult task in this regard. The youths point out that the social behaviour of specific pupils illustrates the fact that not everyone has voluntarily decided for the



Figure 12: Contact situation in martial arts

Reosch and that some pupils have difficulty integrating into the group (I4: 130; I5: 205).

Some of the girls think that the uneven gender ratio contributes to a difficult atmosphere in the class: two thirds of the youths are boys, and in certain situations they dominate the class with their behaviour. This imbalance is also reflected in the seating arrangement: in some grades the girls have chosen to sit together as a group (I4: 382-383). The youths state that conflicts arising from different concerns by boys and girls are quite common at the Reosch (I4: 385, 387).

The Reosch diploma was developed to advance the pupils' development of personal and social skills (cf. section B.11.7). The youths' progress is thus documented and fed back to the pupils not only in a school report for the area of content learning but also in the area of emotional and social learning. The Reosch diploma consists of three levels, and the highest of them is closely connected to the trekking trip (cf. section B.10).

At the Reosch, great importance is attached to "learning in a group": individual learning is triggered by interactive processes and is related to a vis-à-vis. This also explains why the martial arts trainings are considered important: Contact situations in the martial arts always involve a relationship aspect – indeed, this is an explicit as well as an implicit learning goal in the martial arts. One of the pupils describes her experience in the Aikido training as follows: "*We learn how to judge our opponent. We try to find his limits in order not to hurt him and not to overstrain him afterwards. This is very important in Aikido. And I like that*" (I4: 297). The headmaster considers interaction to be a beneficial aspect of the martial arts, too, and he furthermore thinks that this can be transferred to school lessons: "*It's important for everyone – especially for pupils with school problems – to build relationship in the martial arts. Success is almost always guaranteed there. Besides, the training also teaches respect for each other, and this always has a bearing on the classes*" (I1: 207).

D Impact and effectiveness of the Innovative Learning Environment

In Switzerland, there are no regular and systematic surveys on the effectiveness of schools. For the Reosch, too, no such study has been conducted so far. An indication as to the success of the Reosch is the fact the school is nearly always used to capacity even without advertising. Indeed, applicants even need to be waitlisted from time to time (I1: 245).

The large majority of youths who attend the Reosch from grade 7 to 9 manage to find a follow-up option. This can be seen as evidence of the school's educational quality since many of these youths had experienced a history of educational failure and disappointment prior to their enrolment at the Reosch.

According to the Swiss Federal Statistical Office, the costs for a pupil on the level of secondary school (grades 7 to 9) in a state school in the canton of Berne amount to 16,258 Swiss Francs per year¹⁰. The Reosch raises annual school fees of 10,400 Swiss Francs per pupil¹¹. Though this may seem a considerable sum to some parents – especially because they have to pay it themselves – it is considerably below the cantonal average.

Regarding the financial aspect it must furthermore be kept in mind that the Reosch has a special function within the Swiss educational system in that it caters to youths whose behaviour at the state school had become unbearable (I5: 250). If such youths enrol at the Reosch, this is in fact a bargain alternative compared to other specialised institutions.

¹⁰ These direct annual costs include the wage costs plus material expenses. Source: <http://www.bfs.admin.ch/bfs/portal/de/index/themen/15/02/key/ind5.Document.148575.xls> (last accessed June 30, 2011).

¹¹ At the time of writing, one Swiss Franc equalled roughly one US Dollar.

E Conclusions

E.1 Resources as innovation potential

The Reosch fulfils a special function in the canton of Berne in that it specifically caters to youths whose learning motivation, achievement, social behaviour and general situation at the public school had been dissatisfactory. The Reosch thus performs a difficult task that is much more demanding than what is commonly required from other schools in the canton. Beyond the individual innovative elements, a further noteworthy feature of the Reosch's educational concept is the fact that the various teaching and learning methods are based on one central idea: Mental training, martial arts, the energy diary and other approaches are all used to work on the means – i.e. resources – that the pupils have at their disposal to perform. A central assumption in this concept is that it is often impossible to influence these resources directly, but that the learners can optimise the handling of these sources of energy for their performance through techniques of deliberate perception. The school's founder stresses that the realisation of the basic ideas of resource-oriented teaching and learning does not necessarily require the exact same methods as used at the Reosch (I5: 254), but that the following elements of teaching and learning have proved themselves at the Reosch:

- Weekly plan – self-directed and individualised learning (c.f. B.6, C.4, C.6)
- Ability groups – individualised learning (c.f. B.7, C.4)
- Working journal – self-directed and individualised learning (c.f. B.5.1, C.4, C.6)
- Energy diary – emotional learning (c.f. B.5.2, C.3)
- Reosch diploma – assessment of personal and social skills (c.f. B.11.7)
- No marks – assessment of individual learning progress (c.f. B.11)
- Mental training – Awareness training, physical and mental focussing (c.f. B.8)
- Martial arts – dealing with force and counterforce, physical and mental focussing, social learning (c.f. B.9, C.8)
- Trekking trips – social learning, coping with resistance (c.f. B.10, C.2)

The experience, assessments and observations presented in this case study show that the Reosch with its specially designed learning opportunities succeeds in catering to the particular needs of its pupils. This impression is given, for example, by the teachers' attitude that individualisation must be valued more highly than the reference to a general norm. The various elements of the innovative learning environment appear to answer the pupils' coaching needs in different ways: Classes are first and foremost based on self-dependent learning, awareness training and the skill of mental self-direction. Furthermore, in view of the youths' situation it is in line with the school's educational concept that emotional aspects are systematically included in addition to cognitive aspects.

E.2 Transferability

Both the headmaster and the school's founder agree that in order to introduce the idea of resource-oriented pedagogy in other schools two decisive factors need to be taken into consideration: firstly, the educational concept of the Reosch crucially depends on the interplay of its innovative elements rather than on the use of selected individual elements (I1: 256). Secondly, rather than the school structure or the choice of specific teaching and learning methods it is the teachers' attitude that is decisive (I1: 90; I5: 118). Because of the close relation to specific educational principles and values, the successful adoption of resource-oriented pedagogy in other schools therefore depends to a large degree on the consensus of the teaching staff. For this reason, a top-down introduction of this approach seems hardly feasible.

The recruitment of teaching staff has proved to be one of the main difficulties for the long-term establishment of the Reosch's educational concept (I1: 90), firstly, because several skills areas still lack standardised qualifications, and secondly, because the school makes high demands on the teachers' personal skills. For example, in order to successfully conduct a mental training with adolescents the teacher's personal and social skills are much more relevant than any diploma. From the school's founder's point of view there is need for action in teacher training in this respect: in order to be able to guide pupils on their way to an intelligent handling of their resources it is vital that the teachers themselves possess these very skills as well as a highly developed sense of self.

F Appendix

F.1 Methodology

Survey methods

- *Interviews*: Between March and May 2011, five semi-structured interviews were conducted. Guidelines for the semi-structured interviews were developed on the basis of the specifications of the ILE project, methodological literature (Fatke, 2010; Flick, 2002), and the results of previous interviews. All interviews were digitally recorded and were transcribed in standard German (instead of the Swiss-German dialect). For ease of reference, the transcripts were subdivided into numbered sections (for example, (I4: 218) refers to section 218 in Interview 4). Obvious repetitions were eliminated in those passages that are quoted in this case study. The transcripts were thematically coded for the analysis.
- *Observations*: On four occasions, a member of the research team observed classes and trainings at the Reosch and recorded the observations in a written protocol. To this end, an observation form was used where basic data on the learning arrangement, the course of events, and observations of predefined aspects such as, e.g., the intensity of the learning, had to be recorded.
- *Document analysis*: The documents analysed for this study include the school's internet homepage, several learning tools and internal school documents, the headmaster's publication, a newspaper article and a radio interview (cf. sections F.2 and F.3).

Interviews

- I1 Interview with the headmaster, March 15, 2011; duration: 1h 53min
 I2 Interview with a teacher (Part 1), March 22, 2011; duration: 29min
 I3 Interview with a teacher (Part 2), March 22, 2011; duration: 46min
 I4 Group interview with several pupils, March 28, 2011; duration: 1h 24min
 I5 Interview with the school's founder, May 2, 2011; duration: 2h 8min

Observations

- P1 Observation of a martial arts training, March 17, 2011; observer: Anne von Gunten
 P2 Observation of a mental training session and a French class, March 22, 2011; observer: Anne von Gunten
 P3 Observation of the pupils' work with their weekly plan and a mental training session, May 23, 2011; observer: Erich Ramseier
 P4 Observation of a mental training session and a mathematics class, June 6, 2011; observer: Anne von Gunten

Visual data

Miscellaneous digital pictures and films of the Reosch are available. Written permission has been granted by all the teachers, pupils and parents depicted to use this material in project publications.

Project team

Project leader: Erich Ramseier
 Researcher: Anne von Gunten
 Translator: Lukas Rosenberger
 Transcriber: Simon Hauser

F.2 Documents on the Reosch

- AJ Working journal
- HP The school's internet homepage: <http://www.reosch.ch> (last accessed July 1, 2011)
- RI Interview with the school's founder Jakob Widmer, radio broadcast on DRS 1: *Regionaljournal Bern – Freiburg – Wallis*, Sunday, June 5, 2011, 5.30 p.m.
Podcast download: <http://www.drs1.ch/www/de/drs1/sendungen/regionaljournal-bern-freiburg-wallis.html> (last accessed June 15, 2011)
- SP Various class schedules (grades 7 to 10)
- WP Various weekly plans (weeks 23, 25 and 26)

F.3 References

Publication by Jakob Widmer, the founder of the Reosch

Widmer, Jakob (2011): *Frage dich ob du motiviert bist – und du bist es! Das Projekt einer ressourcenorientierten Schulpädagogik*. Augsburg: HummelMedien.

Additional references

- Dumont, H. et al. (eds.) (2010): *The nature of learning: using research to inspire practice*. Paris: OECD.
- Fatke, R. (1997): Fallstudien in der Erziehungswissenschaft. In: Freibertshäuser, Barbara & Prengel, Annedore (eds.): *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft*. Weinheim, München: Juventa Verlag, 56-68.
- Flick, U. (2002): *Qualitative Sozialforschung. Eine Einführung*. Reinbek bei Hamburg: Rowohlt.
- Siegel, D. J. (2007): *Das achtsame Gehirn*. Freiamt im Schwarzwald: Arbor Verlag.
- Yin, R. K. (2009): *Case Study Research. Design and Methods*. Los Angeles: Sage.