Motivating 14-16 year olds:
How do the Swiss do it?

paper given by

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on Friday 14 February 2003 at the LSE
as part of the ESRC FUNDED SEMINAR SERIES
‘How to motivate (demotivated) 14-16 year olds
with special reference to
work-related education and training’
Motivating 14-16 year olds: how do the Swiss do it?

Why is Switzerland of interest to us in this context? Why not, for example, look at Germany, Japan or the United States? There are two very simple reasons before we consider the more complex ones, namely:

- Two-thirds of young people in Switzerland gain vocational qualifications
- There is virtually no unemployment among young people in Switzerland

On the face of it, this seems to indicate a certain level of success in motivating less-academically orientated young people to achieve in the work place. We could add:

- GDP per head in Switzerland is among the highest in the world; remarkable given its relative lack of natural resources and the unforgiving nature of much of its terrain
- the well-qualified workforce is acknowledged as an important contributory factor in its wealth.
- Switzerland’s reputation as a manufacturer of high quality goods – for example in precision engineering – is renowned.

Key factors in Switzerland’s success in motivating its young people are perceived as being:

- The school system maximises chances of success rather than building in failure
- Safety nets are available at each stage to prevent failure
- No choices need to be made by pupils before they are in a position to make them
- Routes to training and qualification are widely understood and recognised

and, moreover, in each of these aspects, the system in Switzerland differs from that in England. Clearly, we need to look at the relationships between
The system for vocational education and training that enables success to be achieved
• The structure and characteristics of the schooling system that underpins it
• The nature of vocational guidance provided particularly for the 14-16 age group
And to ask:
• Whether the system is culture-specific or whether there are lessons for England

The structure of the schooling system
Before we start, we should remember that education in Switzerland is organised on a cantonal basis, with each of the 26 Cantons being autonomous with regard to school education. True, the largest differences are between French- and German-speaking cantons, but even within the German-speaking region there are important systemic differences. So it is difficult to make generalised statements about the nature of the education system that are true for the whole of Switzerland. Remarks made today relate mainly to the German-speaking cantons, and are based primarily on first-hand observational visits to schools and colleges during the last seven years.
The (German) Swiss educational system is devised to maximise pupils’ chances of educational success. The system includes as many pupils as possible at every stage and works to help them succeed. Important aspects of the system include:

• Pre-school provision prepares children for formal learning
• Primary education provides pupils with a sound foundation in core subjects
• Teacher continuity establishes close relationships and consistency
• Flexibility in the system allows pupils to change schools, age groups or to repeat a year according to their needs
• Teachers, parents and pupils work closely together to maximise a pupil’s chance of success
• Less importance attached to ‘academic’ forms of schooling
• Use of generalist teachers for less academic secondary pupils leading to
• Atmosphere of ‘real inclusion’
Pre-school provision prepares children for formal learning

Pupils begin formal schooling considerably later in Switzerland than in England, probably nearer to seven than six, and almost certainly having attended kindergarten for two years before that. Teachers in Switzerland train specifically for the kindergarten age group, and have sole responsibility for a kindergarten class of up to twenty pupils in a mixed age group, thus developing a close understanding and detailed knowledge of each child in a reassuring environment. This is very different from England, where many nursery units accommodate up to forty pupils in one half-day session (and a further forty during the other half-day session), under the supervision of several adults.

The kindergarten curriculum (for children aged 4 ½ to 6 ½) specifically excludes the development of formal reading and writing skills, or recording of number, and concentrates on developing social, emotional and behavioural harmony, together with attention-span, audio and visual memory skills, and gross and fine motor skills. The main aim of kindergarten is to prepare children for more formal learning, and to bring them to a state of readiness for schooling. Thus when pupils begin primary school, no knowledge of reading and writing is assumed; all pupils are taught together step-by-step from the very beginning. Even though privately teachers acknowledge that some school may have been taught to read at home, it is regarded as crucial that all have the same opportunity for learning at school. This is very different from current practice in England, where children as young as three years in the ‘Foundation Stage’ will be introduced to phonics often before they have adequate speaking/language skills. Many of the expectations for written work for Reception class children are unrealistic as some children – often but not exclusively summer-born boys – will not possess the fine motor skills necessary for pencil control. Such children often perceive themselves as failures before they begin Year 1 of schooling; how many of them go on to become demotivated 14-16 year olds?

Primary education concentrates on all pupils acquiring a sound foundation in core subjects

During the six years of primary schooling, there is a strong focus on developing sound basic skills in spoken and written language, mathematics (which focuses on numeracy during the first three years of primary education – geometry is introduced as a separate subject in Year 4). Other subjects on the curriculum include
environmental studies (interpreted very broadly), sport and handwork (including art). ICT does not feature.

The aim during primary schooling is for the whole class to progress together. Children support each other in their learning and a feeling of class spirit is carefully fostered. Children are not set differentiated work in ‘ability groups’ (as is the norm in England); instead they work on a common task individually or in mixed ability pairs, devised so that a faster learning child is paired with a slower learning one. Both children learn from this type of pairing, which helps to contain the range of attainment within a class, rather than it widening as happens with the English method of class organisation.

Teacher continuity establishes close relationships and consistency

During the six years of primary schooling, pupils will have only two class teachers – for Years 1-3 and Years 4-6 respectively. During these three years, a teacher will come to have a very detailed understanding of a pupil’s strengths and weaknesses, learning difficulties, emotional and social problems and so on, and will be responsible for addressing them. This is a powerful mechanism for keeping pupils motivated. In contrast, in the English system, the norm is for pupils to have a different class teacher every year during primary school. The usual objection to the idea of a teacher keeping a class for more than one year is ‘What if a pupil did not get on with a particular teacher?’ This seems strange, since it is surely part of a teacher’s professional duty to ‘get on’ with every pupil; to let personal feelings get in the way seems unprofessional.

(Teacher continuity for a three-year period is also an important feature of the secondary school system and is examined in more detail later.)

Flexibility in the system, allows pupils to change schools, age groups or to repeat a year according to their needs

One example of flexibility with regard to progression by age can be seen at the end of kindergarten. There may be one or two pupils who parents and teachers feel are not yet ready for full-time formal schooling. In such a case, no stigma is attached; it is accepted that the child is developing more slowly in some respects and after a further year in kindergarten will be able to cope much better – and to be more successful – in formal schooling. The child often transfers to different kindergarten for this additional experience. Another small minority of pupils may transfer at the usual age to primary school, but may join a special foundation class that takes two years over
the first year of schooling; the purpose being for these slower developing children to join the regular grade class thereafter, and to maintain progress in moving up each year. The contrast is with the system in England, in which children enter formal schooling strictly according to their birth date within a twelve-month period, and are required to move up every year thereafter, regardless of whether or not they are making progress. In the English system it is assumed that there will be a wide diversity of attainment within a class group, and that this will increase as pupils move up the school, thus increasing the difficulty of whole class teaching and increasing the need for differentiated learning. The Swiss approach reduces the range of attainment within a class group, thus enabling more whole-class teaching to take place, and making practicable the expectation that virtually all children in the class group will achieve the expected standard. Pupils are also able to move within ‘streams’ during secondary schooling, as we shall see in later section.

*Teachers, parents and pupils work closely together to maximise a pupil’s chance of success*

In primary schools in Switzerland, the reference point for parents is the class and the class teacher. Zurich, for example, is one Canton (there are many others) where primary schools do not have a headteacher and it is unlikely that there will be a school secretary on site. Communication concerning progress or behavioural problems of individual pupils is, therefore, directly between parents and class teachers. Telephone numbers will be exchanged automatically when the class teacher takes responsibility for a class; for example, if a child is absent, the teacher is likely to be telephoned at home (or school) to inform him/her of this.

Whereas learning support assistants partially share responsibility with the class teachers in England for the learning development (or social behaviour) of particular pupils (or groups of pupils), there is no provision for such assistants to be present within a classroom in Zürich. The teacher-pupil relationship is thus not complicated by the presence of additional adult(s) in the classroom and subsequent time involved in co-ordination; there is no division of attention from the children, and possible problems arising from different expectations or standards are avoided.

*Less importance is attached to ‘academic’ forms of schooling* At the end of primary schooling, only about 12% of pupils choose an academic education at a Gymnasium (after taking an externally-set and administered test) that leads to the *Maturitat*
qualification at the age of about nineteen\textsuperscript{1}. The overwhelming majority of pupils (nearly 90\%) spends the three years of Secondary Level I in the tripartite system comprised of Sekundarschule (A), Realschule (B) and Oberschule (C) streams. The most appropriate type of school/stream for each pupil is agreed between the primary class teacher and the parents. More recently, AVO comprehensive schools have been introduced; these are attended by about 10\% of pupils. AVO schools are closer to English –style comprehensive schools in terms of organisation; for example, pupils may be in different ‘streams’ for different subjects, so the organisation is closer to broad-based ‘setting’.

From the A stream of schooling, successful pupils have an opportunity to transfer to a Gymnasium at the end of Year 9. This is another example of the flexibility built into the system to encourage success.

Similar opportunities exist for pupils in B and C streams of transferring upwards into the next stream, thus providing important motivation for lower-attaining pupils.

If successful at the end of a school year, and with a teacher’s recommendation, they may transfer to the next stream upwards – but with the need to repeat the previous school year, so that they do not miss essential work. Visiting a Year 9 class in an Oberschule \textsuperscript{©} stream on one occasion, I was surprised to discover that the teacher had only nine pupils. She told me that she had begun in Year 7 with fifteen, but six had been ‘promoted’ to the Realschule (B) stream as a result of their success with her. She was delighted with this, and so were the other pupils in the class, as it demonstrated to them that if they worked hard they were all capable of success. It had had (she said) a significant effect on keeping them motivated and providing them with encouragement to continue their efforts.

There is an important point of principle here; the Swiss system acknowledges that with differentiated curricula for different streams/sets, it is impractical for pupils to move to a higher stream without some repetition. This problem is rarely discussed openly in relation to English comprehensive schools and movement between attainment sets, yet in reality it is a significant problem.

\textsuperscript{1} Although in 1874 the Federal Constitution of Switzerland delegated responsibility for education to the Cantons, the Federal Office retains responsibility for the control of standards of this academic school-leaving certificate, since it is the basis on which students are admitted to university. Since only eight cantons have their own university institutions and must, therefore, accept students from other Cantons, it is imperative that the Maturitat is recognised nationally.
Use of generalist teachers for less academic secondary pupils

At the secondary level, the system in Switzerland is strengthened considerably by the use of generalist teachers with pupils in *B and C* streams (the weakest 45% of pupils); for the next 40% in *A* streams there are only two main teachers (for arts and sciences respectively). This is perceived as having a *major* positive effect on pupils’ motivation and subsequent achievement, for the following reasons.

(i) ‘Generalist’ class teachers are able to develop a *detailed knowledge and understanding* of each pupil’s development and social skills. They meet only their own 20-25 pupils each week, in contrast to ‘specialist teachers’ in England who meet (on average) 180 pupils each week, but in some subjects (e.g. RE and Music) this may be more than 300.

(ii) *Contact with parents* – as in primary schools – is likely to be directly with the class teacher.

(iii) *Action can swiftly be taken* if a problem arises, or additional/specialist help is needed.

(iv) Perhaps most important of all, a generalist teacher is able to maintain *consistency* of standards across the curriculum. He/she is easily able to monitor (at an individual level) attendance and punctuality, attention levels, attitude in lessons, quality of class work, regularity and quality of homework, behavioural and social abilities. It is simple to ensure that the *same behavioural* standards are expected in *all lessons*; that there are no confusing messages being given to pupils through varying teacher standards of discipline – and that the possibilities for less-motivated pupils for ‘playing one teacher against another’ are negligible.

(v) One practical result of generalist class teachers is that the majority of lessons are taken in the ‘home’ or ‘form room’, with pupils needing to travel only to specialist areas perhaps for technological or science subjects. Thus not only do pupils have ready access to the books and equipment in their ‘own’ desks – thus eliminating a source of much annoyance and wasted time in England – but they also do not lose time in travelling between lessons. Many teachers in England acknowledge that it is all too easy for weaker pupils to get ‘lost’ between lessons; and it is readily acknowledged that it is ‘between lessons’ that most incidents of anti-social behaviour, including bullying, occur.
In summary, the widespread use of ‘generalist’ teachers for delivering much of the curriculum to weaker secondary pupils is seen as crucial in preventing the development of an anti-learning culture and in motivating weaker pupils.

If we add to this the fact that the class will stay with a single class/form teacher for the three years of secondary schooling, and we begin to see that the structure of teacher/pupil relationships is very different in Switzerland at this crucial stage of education.

In Sekundarschule(A) streams, attended by more able pupils from roughly the top 13th to the 55th percentile, the normal practice is for teaching of two classes parallel in age and ability to be shared between two class teachers, with one being responsible for maths and science teaching to both classes, and the other responsible for arts/languages. Timetabling is thus a relatively simple problem. As in B and C streams, the class teachers remain with the pupils for the three years. Only in Gymnasium, attended by about 12% of the cohort in Year 7, and with a further 8% of the cohort transferring from the A stream at the end of Year 9, is the use of subject-specialist teachers widespread. The more able pupils in Gymnasium are better suited to managing the complex timetable arrangement associated with specialist teaching, and are, in any event, likely to be more highly motivated and have fewer behavioural problems than lower-attaining pupils.

Vocational guidance

It is of no small significance, I believe, that pupils in Switzerland are not required to make any major subject choices during the stage of Secondary Level I. In England, by and large we require pupils to choose their ‘options’ before they have made – or are in a position to make- any career decisions. It can be a very demotivating experience for less academically-minded pupils to discover either that some subjects are not open to them, or, at a later stage, to realise that they have made the wrong choice. In Switzerland the broader based curriculum for all except the academically-minded minority of pupils prevents wrong or limiting decisions from being made.

Vocational guidance in Swiss schools begins in Year 8 – well before the important decisions need to be taken – by the majority of pupils - at the end of Year 9. The high participation rate of students in vocational education and training reflects partly the excellence of the advice and guidance given jointly by teachers and by the Berufsberatung or careers service. At the beginning of Year 8, when pupils are aged
about fourteen all classes will be visited by a qualified representative from the _Berufsberatung_ to give an introductory talk. At much the same time, letters are sent to all pupils individually – via the class teacher who is seen as an integral part of each stage of the process – providing information about the different types of apprenticeships.

The excellence of the teaching materials available in Switzerland for careers guidance – both in terms of teacher’s guides and pupil’s textbooks – has been identified and described elsewhere (Prais 1995, pp. 69-70). Swiss generalist class- teachers are naturally better placed than English form teachers to discuss pupils’ career options on an individual basis because they will have a detailed knowledge of their academic attainment, their skills, aptitudes and interests, acquired through their daily contact with their pupils in teaching a wide number of subject areas. The widespread use of subject-specialist teachers in England means that the form-teacher is unlikely to teach his/her class for more than on subject (and perhaps none at all); form-teachers are thus poorly placed to discuss career options with their pupils and this responsibility is often passed to a specialist ‘careers’ teacher. S/he, however, will need to collect details from perhaps twelve subject-specialist teachers on a pupil’s academic attainment across the curriculum, and to acquire whatever information is available regarding a pupil’s aptitudes and interests. This is a daunting task, and it is not surprising that the work of a careers teacher in England is more challenging; at the end of the day, however, what matters is the quality of guidance received by pupils – and it may be difficult for them to establish an appropriate relationship with a teacher who may hitherto be unknown to them.

At the next stage, each Swiss teacher brings his/her class to the office of the _Berufsberatung_ (the careers guidance service), so that each pupil is familiar with its location, the organisation of the information material, and meets the advisory staff. Students are encouraged to research career areas for themselves; staff provide advice and guidance but refrain from influencing students towards a particular career area. Students are increasingly encouraged to undertake work-experience – sometimes this is built into the school year – in career areas of interest to them but – in contrast to practice often found in English schools – _are expected to arrange this for themselves_. Teachers may provide help for students in constricting the initial letter of application – students may find they re-write this several times until it is of an acceptable standard – and addresses of firms may be found from the _Berufsberatung_; it is regarded as
important for later success that students take the initiative and are responsible for making all arrangements.

While work-experience in England is regarded as providing a more generalist introduction to the ‘world of work’, work-experience for Swiss pupils provides an *introduction to a specific area of work* which may be suitable for the pupil, given his/her attainments and interests (Prais, 1995). Preparation for work-experience is also taken seriously; visits may be made to several employers before hand, and background information about each firm will be studied. During work-experience, a pupil may be placed to work with an experienced apprentice – who is in a good position to inform the new work-experience pupils about conditions and expectations – and is close in age. Pupils understand that during their work-experience week, employers will be observing their performance closely and forming a view as to their suitability or otherwise for an apprenticeship, should an application later be made. On returning to school, pupils discuss the reality of their work experience with their teacher in detail – some may have kept a diary recording their day-to-day activities – in order to clarify their career choice. Further periods of work experience will be arranged if necessary, either during term time or during the school holidays.

During the last year of compulsory schooling (when pupils are mainly aged fifteen or sixteen), formal applications for apprenticeships will be made to firms. Teachers will provide advice and guidance on the completion of application forms which pupils will be expected to practise until they are certain that their application is of a high standard. Students will also be provided with information on the nature of the agreement to be entered into with the employer; its legal implications and the responsibilities borne by the students.

Two years ago, due to the ‘boom economy’, representatives of the education ministry in Zürich expressed the view that employers’ supply of apprenticeship places currently exceeded demand by school-leavers by about 10%, although there were some shortage areas in, for example, banking and computer studies (where there was excess demand by school-leavers). At the present time, it seems that demand is matched by the supply of available places, but not exceeded to any great extent. **The continued availability of apprenticeship places is clearly crucial, and especially so for weaker students who would be the first to lose out.** At present most students are able to obtain a training place in their chosen area but it is important to provide a ‘safety net’ for who are unable to achieve this. These students may choose to:
(i) stay in school for a further (voluntary) 10\textsuperscript{th} year of study – thus improving their educational standard before re-applications

(ii) accept an apprenticeship in another area

(iii) take a generalised Basislehre for one year. This provides a basic apprenticeship year - at present there are three pilot projects, one organised by the government, one by firms, and one by a public/private partnership scheme.

The success of these pilot projects is to be evaluated by the government

From the detail described above, we can see that the vocational guidance is designed to ensure that all pupils have a clearly defined pathway that reflects their capabilities and interests. The few weaker students who either choose or need to take a 10\textsuperscript{th} year will be supported in exactly the same way during that additional year of schooling – which incidentally, does not appear to be a deterrent for employers but might rather be regarded as a indicating greater maturity on the part of the student. Pupils are able to take two years (during school Years 8 and 9) over developing their post-school plans and are thus not rushed into any hasty later-to be-regretted decisions.

We have already mentioned that some of the students who successfully attended that Sekundarschule stream may wish to transfer to Gymnasium (after passing the entrance test) and continue their studies with the aim of gaining the Maturität qualification. About one quarter of Sekundarschule pupils choose this option; a further quarter (approximately) chooses another form of full-time study, and the remainder chooses the apprenticeship route to qualification. The distribution of students during Secondary Level II is shown below\textsuperscript{2}.

\textbf{Table 1 Distribution of students at Secondary Level II}

<table>
<thead>
<tr>
<th></th>
<th>Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasium</td>
<td>22%</td>
</tr>
<tr>
<td>Teacher-training colleges (Lehramtsschule)</td>
<td>{</td>
</tr>
<tr>
<td>Technical high school (Diplommittelschule)</td>
<td>}</td>
</tr>
<tr>
<td>Other colleges (inc. Handelsschule)</td>
<td>}</td>
</tr>
<tr>
<td>Vocational schools</td>
<td>68%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

\textit{(Source: Statistisches Jahrbuch des Kantons Zurich 2000)}

\textsuperscript{2} Because of the different length of courses of study, however, this table does not tell us the proportion of students entering the different routes. Available figures suggest that about 17% of students in their first year of Secondary Level II are preparing for the Maturität, about 2½% are in initial teacher-training and 4% are studying for another type of diploma.
Thus no students leave school without definite arrangements for apprenticeships or further study.

The system for vocational education and training

To start with, there are a few summary points that we need to be aware of:

- It is a national system – in contrast to the schooling system
- It is voluntary
- An apprenticeship is necessary for a training place at college

A national system

Whereas primary and secondary schooling varies between cantons and even sometimes between school districts, vocational training and qualifications are subject to nationally-agreed standards and external testing. The structure and content of college courses is prescribed by the Federal Ministry, together with the number of hours for each subject, the subject to be examined and the methods of assessment. Examinations are set at the Cantonal level, but importantly - the standard required is based on agreement between professional associations and the Federal Ministry. Assessment of standards attained in vocational subjects is through rigorous practical examinations; their rigour, length and level of difficulty is described in detail by Bierhoff & Prais (1997, pp. 83-85).

It is significant that the system of vocational examinations comes closer to having national application than almost any other aspect of the Swiss educational system. This has an important impact on the standing and status of vocational qualifications; they are known to be of a consistently high quality throughout Switzerland and in this sense are very ‘portable’. Bierhoff & Prais (1997 op.cit., p 76) argue that: “Reliability, transferability and marketability are regarded as supremely important aspects of the Swiss vocational qualification process.”

and draw clear contrasts with the position in England. Employers, parents, students and colleges, all understand the system, how it works, and appreciate that the qualifications gained will set apprentices on a career path for life. Indeed, the lifetime earnings of those with vocational qualifications is not very different from those of university graduates.

The existence of clearly understood and nationally-recognised common vocational standards also helps to shape the curriculum for secondary schools, and reduces
variation between schools. This is hard to imagine in England, where the shape of the curriculum is influenced to a much greater extent by academic ‘A’ level qualifications. It is important, however, for the majority of less academically inclined pupils, since the resulting curriculum may well be more accessible to them and less demotivating than one driven by academic considerations.

**Vocational education is voluntary**

Unlike Germany and the Netherlands, for example, there is no law in Switzerland that requires attendance at a vocational college. In Germany, part-time attendance at a vocational college for one day each week is required until students are eighteen, and the Dutch system is broadly similar. Thus participation in vocational training is voluntary, but has been steadily increasing during the last twenty years and is now at an all-time high. This makes the high participation rate even more impressive, but there are high financial incentives for students to gain vocational qualifications, as the few jobs that are available to unqualified workers are poorly paid.

**An apprenticeship guarantees a place at college**

Only when a student has entered into a training contract with an employer does s/he become eligible for a college place.

The importance of apprenticeships as the dominant pathway for students in Switzerland after the end of compulsory education is shown in the table below.

<table>
<thead>
<tr>
<th></th>
<th>Switzerland</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship type</td>
<td>60</td>
<td>24</td>
</tr>
<tr>
<td>School-based vocational</td>
<td>9</td>
<td>33</td>
</tr>
<tr>
<td>General education</td>
<td>31</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: OECD (2000) Thematic Review of the Transition from Initial Education to Working life; Final Comparative Report*

**The nature of vocational education and training**

Vocational education and training in most areas involves three or four years of study combined with practical work; in a few areas it is possible to qualify in two years. The training contract established between the student and the employer enables students to attend vocational college for between 1 to 2 days a week according to the type of occupation. Students will often attend three types of centre: college, place of employment and an industrial training workshop. College attendance is compulsory;
when on a recent observation visit to Zurich, I commented on the fact that only fifteen students were on the course, I was told that unusually a few had been asked to leave because their attendance had not been satisfactory.

In terms of the content of the course of instruction at a vocational college, about half relates specifically to the apprenticeship, and about half relates to general education; this includes language, mathematics, basic economics and civics and some sport. On another course visited recently, the teacher was concerned that the students should not lose the level of expertise they had achieved during school in spoken English, and so, by agreement with the students, some of the general education lessons were conducted through the medium of English. I was able to observe an interesting lesson (in English) contrasting life in first and third world countries.

At present students need to choose between about 350 areas for apprenticeships, but proposals to reduce this choice to a more manageable number – about 50-70 – are being considered. The number of different areas has increased in recent years due to increasing specialisation; the view expressed by the Ministry, however, is that it is preferable for apprentices to gain a broader-based general experience and to reduce the level of specialisation. This is quite different from the approach taken in designing NVQ courses in England, which tend to be highly specialised. The type of apprenticeships undertaken by students is shown in the table overleaf.

The success rate of students attending *Berufsschule* varies between occupational area – for example, less than 1% fail in training for machinery construction, whereas in the academically more demanding field of electronics, the failure may be as high as 22%. Three chances of taking (two of repeating) examinations are allowed; students may also change to a different occupational area or take a lower level qualification. Although on obtaining qualifications there is no guarantee of employment in the same area, currently 98% of apprentices graduating initially get a job in the same field. It is estimated (by the education ministry in Zürich) that about half of those with vocational qualifications change their precise area of employment within the first five years (half of whom move to a related area); transfer to another area is relatively easy given a degree of breadth aimed for in their basic qualification, and additional training is provided if necessary by the new employers.
Table 3: Percentage distribution of students in public Berufsschulen in Zurich by type of apprenticeship: 1998

<table>
<thead>
<tr>
<th>Type of Apprenticeship</th>
<th>1998</th>
</tr>
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<tbody>
<tr>
<td>Metalworking/machine industry</td>
<td>21</td>
</tr>
<tr>
<td>Administration, office work</td>
<td>19</td>
</tr>
<tr>
<td>Health &amp; Welfare</td>
<td>12</td>
</tr>
<tr>
<td>Sales</td>
<td>9</td>
</tr>
<tr>
<td>Technical</td>
<td>8</td>
</tr>
<tr>
<td>Agriculture and related areas</td>
<td>6</td>
</tr>
<tr>
<td>Textiles</td>
<td>2</td>
</tr>
<tr>
<td>Wood and paper</td>
<td>4</td>
</tr>
<tr>
<td>Graphics industry</td>
<td>2</td>
</tr>
<tr>
<td>Art industry</td>
<td>3</td>
</tr>
<tr>
<td>Building construction</td>
<td>3</td>
</tr>
<tr>
<td>Painting</td>
<td>3</td>
</tr>
<tr>
<td>Hospitality work; home economics</td>
<td>4</td>
</tr>
<tr>
<td>Other Careers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total: all areas</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td><strong>No. of students</strong></td>
<td><strong>33530</strong></td>
</tr>
</tbody>
</table>

(Source: Statistisches Jahrbuch des Kantons Zürich 2000)

During training, students are usually paid between 800 and 1000 CHF per month (£300-£350), although this may be lower in some commercial apprenticeships such as hairdressing. The costs of training are carried by parents in Switzerland to a greater extent than in England; trainee wages in 1993 in Switzerland were only one quarter of those of a newly-qualified person, whereas the comparable figure in England was more than 60% (quoted in Bierhoff & Prais, op. cit. pp. 87-88)

Is the system culture-specific or are there lessons for England?

The Swiss system of education – as we have seen – places less emphasis on the importance of academic-style education and more on the importance of vocational education which is both accessible and relevant to a wider section of the population. The way in which the system maximises pupils’ chances of success – through the flexible routes through the system, the safety-nets at each stage, and the support provided by a level of teacher-continuity unknown in England, is particularly helpful for less academically-inclined pupils. Unlike the English system, pupils are not required to make subject choices – or choice of pathways – before they are sufficiently well-informed and ready to do so. Even then, they are again given a great deal of help in finding the key for the door of their chosen pathway. In summary, the aspects that
are especially important in motivating the (demotivated) 14-16 year olds are as follows:

- Flexibility in the school education system
- Safety nets provided
- Encouraging all to reach a shared common, expected standard
- Continuity of class teacher for a three-year period
- Use of generalist teachers for less academic secondary school pupils
- Providing practical information and help in identifying an appropriate career plan
- Providing support in achieving that career plan, with another safety net available

But are there any lessons for England? It is very easy to dismiss the Swiss achievement in the field of vocational education as being a phenomenon belonging to a culture and society perceived to be relatively homogeneous, middle-class and high-earning. This in itself is a misperception; the level of immigration into Switzerland, for example, has for many years been much higher than in England, and even with the recent increase in asylum seekers in England it is still probably about double the rate. Many classes in school in Zurich are likely to have 80% of the children who have arrived in Switzerland relatively recently and have benefited from programmes for settling in and learning language skills.

But many comparative educationists would argue the dangers— even the impossibility—of attempting to transfer aspects from one education system to another. I am less convinced by such arguments—it is very easy to dismiss a proposal simplistically with the response that ‘It wouldn’t work here’; we need to carefully examined and identify the key features that make one system such a success and to examine how, with adaptation if necessary, they could be introduced into another system. I would quote as one example of this the Improving Primary Mathematics (IPM) initiative; this has analysed the materials and approaches successfully used for teaching primary mathematics in some Cantons in German-speaking Switzerland, and developed a system—acknowledged as being exceptionally effective—for teaching primary mathematics in England

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3 The IPM initiative has been a co-operative project between inspectors and advisory teachers in the London Borough of Barking & Dagenham and researchers at the National Institute for Economic & Social Research since 1995. The materials and teaching approaches that have resulted are now used
In terms of motivating 14-16 year olds, there are some key aspects of the Swiss system that could be introduced into England without any difficulty; others would be more difficult. The system for teacher continuity during the formative primary school years, for example, lies within the control of an influential head teacher. The use of generalist teachers with lower-attaining pupils at secondary level would be more difficult to introduce, partly due to tradition and partly because of the narrowness of teaching qualifications. A start towards this could be made, however, by reducing the number of teachers involved with lower - attaining pupils to, say, three or four; this would help to simplify the number of teacher-pupil relationships and the reduce the complexity of monitoring procedures. We could continue with other examples.

Finally, while in any society there will be a number of demotivated young people; the objective is surely to reduce this number to a minimum. Switzerland is, from the available evidence, successful in achieving this, and we should look very carefully at the lessons we can learn and those effective features that we might just, with determination, be able to introduce.

REFERENCES


STATISCHES AMT DES KANTONS ZURCIH (2000) Statistisches Jahrbuch des Kantons Surich (Zurich: Zurcher Daten Services)

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across England and Scotland in several boroughs. More information can be found on the web site: www.ipmaths.co.uk