VIRTUAL SCHOOLS AND COLLEGES

Providing Alternatives for Successful Learning
Practically everyone has the same understanding of a school or college as a place where students go to learn. But what about the students who find it difficult simply to go to a place of learning? What if they are scared of school, ill or unable to access the school for some other reason? What about students who want to take subjects which they cannot access in their local school or college or young people who are incarcerated and who want to find a way into further or higher education to increase their life chances?

Virtual schools and colleges are an increasingly important alternative for these students and are becoming more and more prevalent all over the world – including Europe. But little is known in Europe about how they operate or what makes them successful. Many people are suspicious of these new structures particularly when they are offered as a replacement for compulsory-level education. Yet a lot exist now and have been the subject of a recent investigation supported in part by the European Commission.

This brochure will provide you with a basic understanding of virtual schools and colleges, provisional policy recommendations to support effective virtual schooling and information about where you can find out more. We have also included a selection of different examples of virtual schools and colleges, mostly from Europe, to illustrate the types of virtual schools that already exist.

The outcomes of our research are summarised in the VISCED Handbook and we encourage you to comment on the material in this brochure so that more knowledge of researchers and practitioners can be reflected in our ongoing work.

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Virtual schools and colleges are usually defined as institutions that teach courses entirely or primarily online. These courses are generally similar (in purpose and outcome) to those taken by school or college-age students. While there are large numbers of them operating in the United States already and in other parts of the world, 70 have also been identified in Europe distributed across 19 different countries. They are slowly on the increase as demand for more flexible paths to learning increases. In this brochure we have focused on secondary level education aimed at the 14-21 age group as well as colleges providing opportunities for students including those moving between school and higher education. However we are also aware of virtual primary schools and other related virtual initiatives aimed at young people and if these are taken into account, the number of institutions in Europe would probably rise closer to 100.

Characteristics of European Virtual Schools and Colleges

On the basis of the evidence available at present, we estimate the split between those established by public or private providers to be approximately 50:50. There is a spectrum of governance models which includes Public, Private, Public/Private, not for profit and non-profit.

At least 10 European virtual schools were initially established to support expatriates and/or the children of military personnel serving overseas. However a more significant proportion of them (extrapolated to be between 30-50%) were initially established to address issues of pupil exclusion.

Characteristics of pupil exclusion from mainstream national schools addressed by European virtual schools include:

- Students who are long-term sick and/or hospitalised
- Students with disabilities
- Young parents or pregnant young women
- Travellers
- Students who have been bullied or are school-phobic
- Students who left school with no or few qualifications
- Students who are imprisoned
- Geographically isolated students
- Students with specific language needs (immigrants with poor host-nation language skills)
- Expatriates – often the children of diplomats or executives in multi-national companies
- Elite performers – e.g. athletes, sportsmen, child entertainers.

The typical size of European virtual schools, where enrolments are quoted, is around 450-500 students; the smallest we have identified has 25 students and the largest individual virtual school in Europe has many hundreds.

A significant proportion of these schools (possibly in the region of 50%) offer a full, or broad, curriculum and in several European countries there appears to be a growing interest in virtual schools providing supplementary or specialist courses and/or revision lessons.

There is a broad pedagogical spectrum – from 100% online through to significant face-to-face interaction – and a variety of communication tools including Skype and commercial videoconference systems, e-mail, telephone and learning platforms.

In many cases the virtual schools reflect local or national circumstances – either in support of policy priorities or to meet demands not sufficiently catered for in their host region.
**CASE STUDIES**

**Bednet in Belgium**

Bednet is a regional project in Flanders set up in 2005 whereby students suffering from long term and chronic diseases follow lessons and interact with their own class through videoconferencing. It currently caters for around 160 students aged 6-18 and has two aims: to ensure that children can keep up with their school work and that they can remain in contact with teachers and classmates. The school remains responsible for the child’s schooling: the Bednet staff describe themselves as facilitators. The student is linked to his/her class via a Bednet set which consists of two laptops (one with the student, the other in the classroom), two webcams, two scanner-printers and a camera focused on the blackboard. This means that the student participates in lessons in real time, using signals to ask questions and interact. Although not technically a school, Bednet is working on a strategic plan to increase its service to 500 Flemish students annually and to become a fully integrated – and therefore supported – ministry service.

**InterHigh in Wales**

InterHigh was established in 2005 for students aged 11-16, up to GCSE level. From an initial enrolment of 23 students, by as early as 2009 it had more than 200 pupils spread across its five year groups. InterHigh is a private school registered as a not-for-profit company. Most of the pupils live in the UK; the rest are expatriate children living abroad. The school has proved particularly beneficial for children who are unable to settle at mainstream schools, including children with Asperger’s syndrome and the full range of inclusion issues. Students study online mainly from home and staff do most of their teaching from home. Lessons follow the National Curriculum with internal tests to assess progress. Recently, InterHigh has expanded by launching three new business divisions: joint ventures with local authorities and independent schools in the public sector, independent schools and tuition businesses. The main new business is Academy 21, which caters for pupils excluded from conventional schools and referred to InterHigh by their local education authority.

**Ensino a Distância para a Itinerância in Portugal**

“Ensino a Distância para a Itinerância” (ED) – previously known as “Escola Móvel” – is a distance learning project of the Portuguese Ministry of Education and Science aimed at ensuring regular schooling of travelling children whose families work in circuses and fairs. The project has recently been broadened to include hospitalised children, teenage mothers and other young people who cannot function in bricks-and-mortar schools and caters for up to 100 students. ED is currently based at a school in Lisbon, which hosts teachers and provides logistics and the organisational infrastructure for the project. Although online and ‘at distance’, it is largely based on the Portuguese national curriculum and follows a traditional approach involving subjects, timetables, assignments and grades. The underpinning approach and pedagogy is, however, adapted to the needs of the particular target group. The project relies on 23 teachers and a project co-ordinator, with each teacher responsible for tutoring 3-5 students and establishing close relationships with their families. The school uses a Moodle platform, with chat as the main instrument for interaction during lessons.

**iScoil in Ireland**

iScoil is run as a private not-for-profit organisation funded by the Presentation Sisters in Ireland and caters for young people aged 13-16 who are out of mainstream school, largely referred for school phobia and refusal or disaffection and mental health issues. The number of students is around 45-50 at any one time. Students are referred through an established process by welfare officers working with the National Education Welfare Board: criteria for referral include having been out of school for at least 6 months, having tried other provision and having at least one supportive parent or guardian. The original approach was fully online, but this has now been broadened to include a blended learning approach. iScoil uses Moodle as its online learning platform. It operates an individualised online learning programme and whilst it does provide opportunities for students to collaborate and work together, it does not insist on this. iScoil does not yet have an official status within the Irish education system as the concept of the virtual school is new to the Irish system.
Nettilukio - Otava Folk High School in Finland

Originally founded in 1892, Otava Folk High School launched the project Internetix and within this project Nettilukio, a fully virtual upper secondary school, in 1996. Otava Folk High School now consists of the actual physical Folk High School, Nettilukio (virtual upper secondary school) and Nettiperuskoulu (virtual basic education). When Internetix first started, the emphasis was on producing e-learning materials that students could use whilst taking upper secondary school courses. As Nettilukio developed, it designed its own learning platform, Muikku, designed to support both study and evaluation. There are now more than 500 students from all over the world in Nettilukio. At present, people with learning disabilities, who have been bullied or found it difficult to cope in physical schools form the largest group of students. Nettilukio works with 23 part-time teachers not all of whom live in Finland. Students at Nettilukio choose between three different methods for completing their courses: (1) non-stop courses; (2) collaborative courses; (3) phenomenon-based learning. There are no examinations or testing regimes.

Sofia Distans in Sweden

Sofia Distans was established in 1994 to enable expatriate Swedish students to study within the Swedish school system. There are 500-600 enrolments in each year group, now including students in Sweden who are not able to attend conventional schools. Funding is a mix of public and private. There are 20 teachers and every student has a parent or tutor in their home location. Students in Sweden who study at Sofia must have their studies approved by the local school they attend, which then pays a fee to Sofia to cover the costs of the subjects the student studies via Sofia. On average the students study 50% at their local school and 50% at Sofia. The pedagogical approach is to offer online blended distance learning. Most students are engaged in self-study, following Sofia Distans prepared study plans. Teaching is subject-based. The technology used is a FirstClass platform, with DVDs and extensive use of the internet. Student outcomes are similar to physical schools: the school conducts the national tests in Swedish, English and mathematics. The qualifications are recognised in Sweden.

Rīgas Tālmācības Vidusskola in Latvia

Set up in 2009, with the support of the Ministry of Education and Science, Rīgas Tālmācības Vidusskola (RTV) initially offered general secondary education but has now begun to offer primary education as well. RTV is the first distance learning school in the Baltic States to be accredited by its national ministry. Student numbers have increased each year and there are now around 450 living in 22 different countries and aged from 14 to 57. More than half the students are full-time. A smaller proportion of part-time students use RTV as a supplementary school to complete subjects they want to improve. RTV has 29 teaching staff and communication between students and teachers is carried out on the school’s e-study environment and may involve Skype, phone, e-mail or any web-based programme that they agree to use. Teaching and learning takes place in a range of modes, including independent study, online group tutorials, individual online tutorials, individual correspondence tutorials and tests. Study materials are provided through video lectures, Ministry-prepared interactive materials, private lessons and Skype lessons. Students take the same examinations as in conventional schools.

Wereldschool in the Netherlands

Wereldschool was founded in 1948, initially to provide education for the children of Dutch nationals living in the former Dutch colony Indonesia. In 2011 it split its operation into two separate ‘sister-schools.’ Wereldschool continues to support children overseas and another school – IVIO@School – has been developed to support children in the Netherlands who are not considered well-suited by the traditional Dutch education system. Home schooling is usually legal for Dutch children living overseas but is not legal for those educated in the Netherlands. These children are expected to attend a physical school where they work through the IVO materials and are supported online by IVO teachers. IVIO@School already has 600 students of whom 90% are full-time. Wereldschool itself currently supports approximately 700 students overseas across 128 countries, 15% of whom study a full online-curriculum. The school is privately owned but is recognised as a school by the Ministry of Education. However, the only funding received directly from the Dutch Government is for ‘Dutch’ as a subject and parents pay for the rest of their education.

http://www.virtualschoolsandcolleges.info/case-studies
KEY SUCCESS FACTORS

During our research we identified a number of factors which help to make virtual schools and colleges successful. These are factors that contribute to the sustainability of the different virtual schools and colleges that we have encountered and are factors that are likely to enable the setting up of successful virtual schools and colleges in the future. The factors mentioned here appear to be key to success; our final publications refine these into a set of factors which are critical to success and sustainability.

Usability of the system which supports students, teachers and others involved
It is clear from our investigation into virtual schools and colleges that the technical infrastructure they put in place has to meet very high standards of usability, even though the technology employed may be relatively old and simple. Whatever the system, the extent to which it is user-friendly and fit for purpose is a key consideration.

Extent to which a clear e-learning strategy is in place
A complete commitment to e-learning is core to the rationale of the school or college and not only does it define the school or college as being different but is also fundamental to how it operates. Arguably without the e-learning aspect, many of the virtual schools and colleges we investigated simply would not exist.

Appropriateness of recruitment and training policies
Many of the job roles in virtual schools and colleges are multi-faceted and complex, demanding a mixed set of skills and competences as well as high levels of empathy and understanding related to the specific nature of the students involved. Virtual schools and colleges have to identify staff who will bring together not only professional skills and empathetic attitudes but also appropriate technical skills and competences.

Extent to which regular evaluation is in place
Given the highly innovative nature of the virtual schools and colleges we encountered, it is hardly surprising to note that most of them are engaged in the regular evaluation of all their processes, particularly learning/teaching processes and curricula. Often evaluation is conducted implicitly and informally.

Robust and reliable technical infrastructure
To be successful, virtual schools and colleges all agree that their technical infrastructure needs to be extremely dependable. For many the quality of the technical support needs to be particularly high when it comes to dealing with users as they are generally not technically expert and may require sensitive management when it comes to their local technology set-up.

Strong leadership skills and competences
Many of those involved in virtual schools and colleges are pioneers, comfortable with overcoming challenges and breaking down barriers. Most have strong beliefs when it comes to topics like equity in education and the importance of lifelong learning and it is clear from our work that strong leadership skills and beliefs and a value-system that enjoys overcoming challenges are vital components when it comes to creating successful virtual schools and colleges. These leaders need to also be able to make clear decisions.

Strong emphasis on learning outcomes – often on an individual basis
Most of the organisations we investigated were able to describe clearly defined learning and development goals, which can be assessed, where appropriate, for purposes of certification and progression.

Availability of appropriate learning resources
Some virtual schools and colleges create their own digital learning resources while a few either buy in commercial materials or use a mix of both. What is core to all is the accessibility of the material and the extent to which it meets the curriculum needs. There is increasing interest (from a low base) in OER.

Clarity of the organisational system underpinning the operation of the school or college
Everyone involved in virtual schools and colleges needs to have a clear idea of the rules governing the school, the different progression options offered by different learning pathways and the relationship of the curricula to national or state requirements, especially as many do not cater for what can be considered main stream students.
RECOMMENDATIONS

Recommendations arising from the VISCED project are aimed at the European Commission and national education policy makers. These recommendations are all inspired by our belief that virtual schooling can contribute substantially to important educational and social policy objectives.

- **Raise awareness as to the value and impact of virtual schooling in meeting education and social policies**, including the collection of appropriate data, i.e. figures for the numbers of students taking online/distance learning courses, whether these involve full time or supplementary studies. Potential beneficiaries include students who are school-phobic, excluded, geographically isolated, travelling or transient, young offenders, seriously ill students and young mothers of school age with childcare responsibilities.

- **Raise awareness of the potential of virtual schooling in helping students maintain timely progression through the curriculum and in supporting students who require additional revision, acceleration or have special curriculum needs.**

- **Remove any unnecessary bureaucratic impediments which inhibit the development and sustainability of virtual schools and colleges.** In many cases this includes bringing virtual schools and colleges within a regulatory and accountability framework which protects but does not disadvantage learners – or the schools. These frameworks should facilitate student mobility between schools/colleges and transition to further and Higher Education.

- **Encourage virtual schooling options in traditional schools and colleges as a strategy for reducing early school leaving.**

- **Encourage virtual schooling options as a means of increasing the uptake of Science, Technology, Engineering and Mathematics subjects (STEM).**

- **Incentivise teachers to become active in virtual schooling.** Consider introducing a common set of standards for online teaching and online courses and facilitate support for individual countries when integrating these into their teacher training programmes.

- **Encourage and advise virtual schools and colleges to exploit Open Educational Resources (OERs),** including those directly or indirectly funded from the public purse as well as allowing any teacher/institution created content to be published under Creative Commons licenses.

- **Exploit the potential for virtual schooling to drive internet take-up, promote the information society, e-government services and improve student (and parent) ICT skills.** Where domestic internet access is limited, individual education departments should be encouraged to develop strategies to ensure that neither existing community users, nor virtual school students, are disadvantaged.
PROJECT DESCRIPTION AND INVITATION TO PARTICIPATE

Project description
This work is a direct outcome of VISCED, a European collaborative project that carried out a transnational appraisal and systematic review at international and national levels of virtual schools and colleges. The outputs of this work have been analysed and compared to identify relevant parameters and success factors for classification and comparison. VISCED is a two year project that began in January 2011 and is part-funded by the Lifelong Learning Programme of the European Commission.

Project Wiki
VISCED is open to all interested researchers and policy makers. An inventory of virtual schools and colleges worldwide has been publicly available on a research wiki throughout the project. The idea behind this is to make available an open and public space where researchers can share information about virtual developments in various different educational sectors. It is supported and maintained by a growing community of researchers and is aimed at stakeholders, researchers and practitioners who would like to have easy access to the latest information about how the virtual learning phenomenon is manifesting itself in schools, colleges and universities around the world. Contributions are welcome from researchers.
http://www.virtualschoolsandcolleges.eu

Project Website
VISCED also supports a website where all public project outcomes are published. This also provides a news service on the topic of virtual schools and colleges and publishes a newsletter on a regular basis. To date more than 700 people receive this newsletter. The website also contains a full report, including interviews, with many of those who took part in the Virtual Schools and Colleges Colloquium which was held in Sheffield in May 2012. Interviewees include many of those operating virtual schools and colleges as well as researchers and others interested in the virtual school phenomenon.
http://www.virtualschoolsandcolleges.info

VISCED Handbook
A key outcome of the project is the Virtual Schools and Colleges Handbook which includes a summary description of virtual schools worldwide as well as a detailed description of the case studies gathered by the project team and the piloting work of innovative ICT practices supported during the project lifetime. It also contains chapters on teacher training and success factors and is a useful resource for anyone who would like to learn more about virtual schools and colleges.

Your participation
This brochure describes some of the interim key findings of the project. We are well aware that there is knowledge and expertise which we have not yet tapped into. We would be delighted if you would add to the wiki and share your knowledge and comments with us.
contact@virtualschoolsandcolleges.info

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