



At a Glance

What they wanted to do

 To enhance the pupils' digital competencies for a better education looking to the future.

What they did

- A new teaching methodology supported by the technology of Chromebooks and Google Apps for Education.
- Up to €600,000 in cost savings during the next 4 years due to the elimination of maintenance and licensing costs.

What they accomplished

• Savings in time and increased efficiency in the teaching process.

Vedruna Schools rely on Chromebooks as a tool for their students' development in digital competencies

Background

Founded in the city of Vic in 1826, the Vedruna Schools of Catalonia currently form a network of 36 centres on a private-public partnership basis in this Autonomous Region and currently have 22,000 pupils on their rolls from Kindergarten up to Middle and High School. All of the centres are inspired by the same educational philosophy in the life's work of Joaquina de Vedruna, following a Christian model as the basis of their educational approach. Vedruna is committed to continuous professional development of its teaching staff and the use of modern technology at the service of education.

Although there have previously been Vedruna schools that used the Google Apps for Education environment, they did not have the support of Chromebooks. In 2013 a pilot trial was begun with Chromebooks in a determined effort to take the digital education of the pupils a step further, and it was found that the system offered certain real advantages in the learning environment over the previous system, which was based on a computer studies classroom subject to severe limitations of usage. Taking the first experiment with Chromebooks as a starting point, a pilot plan was designed with three more schools and 100 devices over 3 months. This would be the beginning of the successful introduction of Chromebooks in the daily routine of pupils and teachers.

The challenge

Technology as an ally in education for the development of a better preparation of the pupils through new methodologies has always been one of the pillars of the Vedruna Schools. With its forward-looking vision, Vedruna has always been keenly aware of the need to have a powerful technological component that fosters collaborative learning and the creation of networked knowledge.

Years ago, Vedruna schools set up classrooms with computers with traditional office software packages that the pupils could use with certain subjects. However, there were many limitations: difficulties in sharing documents and information between classrooms, maintenance problems, complexity of use and high costs of licenses. Added to this, the growing need to adapt the educational process to the digital environment prompted Vedruna to decide to broaden its resources for its pupils and it was in Google that the best solution was offered.

This decision not only sought to solve the problems of its previous technological initiatives, but also to go one step beyond, as Pere Viñas, Primary teacher at Vedruna School in Ripoll explains: "With the introduction of Chromebooks in classes we sought to increase our pupils' motivation and, at the same time, their learning ability. Also, we wanted to lead the way for teachers to a much more competency-based form of teaching which in turn will help to boost the inter-relationship between pupils and teachers, thereby also facilitating group work both in the classroom and out of class."

"I like to use Google Drive and Apps both inside and outside the classroom. Thanks to these I now have a much closer relationship with my teachers and I feel that they are always there for me."

—Ruth Rota, year 6 pupil, Vedruna school in Ripoll

The solution

There was already a precedent in several centres that already used the Google Apps for Education environment, but without the support of Google Chromebooks. It was in September 2013 when the first complete experiment was conducted using Chromebooks in compulsory secondary education courses at the Vedruna secondary school in the district of Gracia, Barcelona. In this first phase 150 Chromebooks were used, with which the pupils and teaching staff began to come into contact, assessing their capabilities and features. After three months it was found that the system offers real advantages over the previous system, and the Vedruna's board of management decided to take this to the next level.

In the second pilot project, which began in January 2014 with Chromebooks in Vedruna Gracia, Barcelona, linked to centres in Ripoll, Tarragona and Vic. In this case, exhaustive tests were conducted through which the principals of the centres participating in the pilot programme assessed the possibilities of the teaching-learning which the system provides both to students and to teachers, and thus took into account the change in methodology which the use of Google devices and their characteristics can bring to the classrooms. "it has helped me a lot to communicate with my pupils, above all to use Google groups and to be able to send a single email to the whole class" – Susana Adell, secondary level teacher at the Vedruna Immaculada school in Barcelona.

Having seen the benefits for the pupils of being able to use Chromebooks and Google Apps, in April 2014 technical training began for the 36 Vedruna centres in Catalonia, which will begin to use this innovative system that is able to cater for the educational needs of our times and the future. Vedruna believes strongly that bringing Chromebooks into its classrooms constitutes a great help for the development of all of its learners' learning potential; they will be equipped with the digital competencies they need to deal with group work and carrying out web-based projects.

It is not only teachers who are more than satisfied with the use of Chromebooks and their applications and functionalities. The students also are enormously appreciative of how the new digital system has changed their way of learning and relating to one another in the educational system. A pupil from Year 6 at primary level in Vedruna's school in Ripoll, Ruth Rota, gave us her assessment: "I like to use Google Drive and Apps both inside and outside the classroom. Thanks to these I now have a much closer relationship with my teachers and I feel that they are always there for me."

In September 2014, with the beginning of the new term, the roll-out of Chromebooks commenced in the Vedruna schools in Catalonia, with 2,000 new devices and 3,000 users who can follow the classes via the specific digital materials for the various subjects based on Google Apps and using Google Drive.

In the case of some Vedruna centres, the Chromebook device belongs to the pupils and they can take it home, whereas in others there are devices that can only be used in the classrooms; however this does not disadvantage the students, since they can access the work environment from any location using Google Drive.

Chromebooks are used by Primary level pupils (from Year 2 to Year 6), pupils in compulsory Secondary education, Education and Technology ('TIC') teachers and management in Vedruna Catalonia Education and Management. With regard to the availability of the devices, pupils in Year 1 at secondary level have one Chromebook each, while pupils in other years have shared devices. Staff have one Chromebook per person.

"The learning capacity is greater because the motivation is greater. The inter-relationship is also enhanced because pupils help one another and share documents on Drive"

—Pere Viñas, primary level teacher,
Vedruna school in Ripoll

The educational dynamic via Chromebook varies according to the school. While some of the Vedruna centres in Catalonia use Google devices for certain subjects, others on the other hand have opted to completely digitize all of their subjects. In any case, the indispensable elements used in all Vedruna schools in Catalonia via Chromebook are Google Drive and Google Apps. Cristina Campos, primary level teacher in the Vedruna school in Espluga de Francoli, emphasises that "the fact that one can work from home with the same system and environment as the one in the school makes communication with the students out of class time much easier."

As the tools which Google places at the disposal of schools are evolving every day, the Vedruna centres in Catalonia have an administrator whose mission is to keep the system

up to date by periodically selecting new Apps that are then incorporated as new features on the pupils and teachers' home page. Gmail, Google Drive, Google Classroom are some of the Google Apps for Education tools that are most widely used in Vedruna's centres, as part of communication and co-working solutions which Google offers for working in the classroom.

As Google and its email platform Gmail constitute an environment that is familiar to pupils and teachers, it was by no means complicated to implement the use of Chromebooks among the various stakeholders of the education system. Even taking this into account, Vedruna Catalonia has an internal advice and consulting system provided by experts who, in turn, can avail of the external support of Google's professionals.

The benefits

Chromebooks, in conjunction with Google Apps, Google Drive and the other tools aimed at creating an educational process based on interactive methodologies have succeeded in boosting the pupils' motivation, as well as the teachers' enthusiasm which are both hugely supported by this new, more collaborative and closely-knit environment.

The user-friendliness of Chromebooks and Google Apps for Education mean that the pupils become immersed in the new approach almost without noticing it. Work has become much easier to do and this encourages teachers to continue working in the new methodological environment. The pupils are content as they can have their own account through which they can store all of their files on the cloud and access them from any device.

"The learning capacity is greater because the motivation is greater. The inter-relationship is also enhanced because pupils help one another and share documents on Drive" – Pere Viñas, primary level teacher at the Vedruna school in Ripoll.

The improvement in digital competency in Vedruna schools in Catalonia is already quantifiable. From Year 3 at primary level, 80% of pupils have already achieved digital mastery. Before Chromebooks were introduced, only 30% of pupils could be considered technologically competent.

The system's take-off speed, the fact that it has been incident-free and that the pupils do not have to go to a specific classroom to use a computer, are all plus points in terms of user-friendliness, in conjunction with the great advantage of being able to access the class materials anywhere without having to rely on a shared disk on the school's internal network, with the added benefit of continuing to work from home without having to transport the materials on USB memory drives, thereby eliminating the risk of loss or error.

All of the teachers agree that being able to share folders and documents facilitates group work. What is more, in Vedruna Catalonia we have seen

About Google Apps for Education

Over 30 million students, faculty, and staff use Google Apps for Education worldwide. Google Apps is a free suite of hosted email and collaboration applications exclusively for schools and universities. You can learn more and sign up to try it out by visiting our website:

www.google.com/edu

About Google Chromebooks

Chromebooks are fast, portable computers that give students access to the web's rich educational tools & resources. Educators can manage Chromebooks easily from their web-based Admin Console. And starting at just £199 per device including Google Apps for Education for free, these computers make technology affordable for schools. You can learn more here:

www.google.com/edu/products/devices/

an increasingly close relationship between students and teachers thanks to the use of Chromebooks.

"Thanks to Gmail, there has been an increase in communication with pupils who generally go unnoticed in class", was one comment from one of the centres. In addition, using tools such as 'chat', shyer pupils see the opportunity to express themselves without feeling pressured, according to the Vedruna school in Ripoll.

The greater responsibility and autonomy students now have are other major benefits of the use of Chromebooks in Vedruna's schools in Catalonia. The pupils manage their own access to learning, working at their own pace and according to their own individual needs. In this way, diversity is promoted in each pupil's learning style, thereby in turn increasing the degree of responsibility that each individual takes on.

As well as the direct impact on student performance and motivation, Chromebooks have given pupils better reading comprehension, enhanced critical faculties, a broad capacity to inform themselves and an excellent level of digital competence of great value both now and in the future.

