

## Sollentuna saves time and money while collaborative learning flourishes with Google for Education

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### At a Glance

#### What they wanted to do

- Enable formative and collaborative learning
- Empower critical thinking, creativity and collaboration among students and staff
- Spread the use of ICT in Sollentuna's 30 Schools
- Integrate technology into classroom practice and spread experiences and knowledge about digital learning among teachers

#### What they did

- Opened up all features of Google Apps for Education for all 8.000 students and 2.000 teachers / staff members at Sollentuna's 30 schools
- Gave total freedom to teachers and invited them to share ideas and teaching methods
- Made the decision that all students and teachers should have a device to use by the end of 2013 to establish a one to one learning model
- Bought 3.000 Chromebooks and other devices
- Evaluated the results, wrote Peer Reviewed research articles and created a PhD scholarship for further scientific study

#### What they accomplished

- To anchor Google for Education as the main ICT among students and staff in all the schools of Sollentuna
  - The 'Write to Learn' (WTL) method for bettering student performance significantly by way of ICT. As of 2016 the method is becoming a national training program in Sweden that all municipalities can apply to attend
  - A cloud-based infrastructure that works with a relatively low Total Cost of Ownership (TCO)
  - A new learning environment where real formative and collaborative learning flourishes
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### Background

"The infrastructure from Google for Education helped us establish formative and collaborative learning. It makes collaboration easier and more effective at all levels. Everybody uses it – from students, to teachers, janitors and people in the administration – everybody has a Google Account and almost all of us use it everyday", says Andreas Cassne, ICT Strategic Counselor at The Educational Office in Sollentuna.

Sollentuna Municipality started digitizing their schools in 2010. The goal was that all students and teachers have a digital device for their own use by the end of 2013. In 3 years approximately 5,000 new devices had been purchased and distributed among staff and students.

"We began our process early compared to other schools in Sweden. They look to Sollentuna for inspiration", says Andreas Cassne.

But he also claims that Sollentuna's IT infrastructure did not really make a difference until Google for Education went live and began serving Sollentuna's 10,000 users in the spring of 2011.

### Challenge

During the first 3 years of going digital Sollentuna purchased a mix of PCs and other devices. The setup was time consuming and expensive. Apps stored on local devices frequently needs updating. Sometimes they malfunctioned – sometimes the OS did. Every time it happened time was lost from teaching and learning.

"We could make a huge saving with user certificates by going Google. We also wanted to save money, if possible", says Andreas Cassne.

The most important factor was getting an infrastructure ready – one that students, teachers and staff would use and that would support the learning goals of Sollentuna.

In Sollentuna they believe in collaborative or formative learning – a sort of "learning-by-doing" in groups where you benefit from other group members' skillset, contributing to better results for all and learning along the way. This way, you can discover how things are done by people more knowledgeable than you in a particular field. You are inspired by other team members and learn from each other.

"We are trying to create a new learning environment and culture", says Andreas Cassne.

### Solutions

Students started using the Google for Education tools without hesitation when teachers introduced them in school lessons.

"Our approach was to give our teachers total educational freedom", says Andreas Cassne.

He explains how the most digitally advanced teachers tried new things with Google Apps for Education, that spread to teachers who were initially not so keen on using digital tools.

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*"If pen and paper is the best option, then we should go with that. But looking at our goals, Google for Education is a perfect match."*  
—Andreas Cassne, IT-strategic Counselor at Sollentuna County

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"We opened all features of Google Apps for Education - thinking that teachers would use whatever they could. And they did. Everybody uses it now", he says.

Giving teachers freedom and encouraging digital learning experiments has been the road forward for schools in Sollentuna.

"Take Google Classroom for example. Especially those who initially were not too comfortable using Google Drive, started using it heavily. Using Classroom on a daily basis leads teachers and students to build their own classroom structure. Doing that got them closer to Google Drive and other apps – both Google and 3rd party. In a way 1 + 1 equals 3 with Google, as one of our teachers put it. The more you're using one of the apps, the better you get at using the others", says Andreas Cassne.

He also claims, that without Google for Education, digitalization would not have made a real difference in Sollentuna.

"If the infrastructure weren't cloud based, we'd still be passing on information as attached files in emails. The setup we have ushers collaboration on a whole other level. The ability to work on the same projects as a group is what really makes the difference", Andreas Cassne explains.

In addition to devices already purchased by the municipality, and staff and student's own private devices, Sollentuna purchased 3.000 Chromebooks from 2013 -15. Chromebooks are used by staff and students who want to integrate more quickly and effortlessly with the Google Apps environment.

Chromebooks boot up in a matter of seconds. They are very fast, because they only need to boot up a browser and get the user online. The apps used on a Chromebook are all launched in the cloud. It means that the margin for technical malfunction due to the local device diminishes considerably. If a Chromebook breaks or malfunctions, it will usually be caused by some hardware failure. Instead of teachers spending time trying to fix it, the unit is shipped off for repair. Students pick up a new device – they login to their Google account and continue their work, as their information is tied to their user account rather than the device.

### **Benefits**

Sollentuna saved a lot of money by changing over to Google for Education. They saved about 2 million Swedish kroners on certification alone. Chromebooks are cheaper than other options in the market. They can be purchased at about half the price. This is particularly helpful for those managing education budgets.

In addition, the Google for Education solution is considered a timesaver.

"We don't have as many physical meetings. Many can be held as virtual hangouts. You can make yourself heard by starting a document and inviting people to edit and contribute. If you want to share information or get a hold of someone, you're not usually working with, just look them up, contact and share. Communicating is much easier and faster", says Andreas Cassne.

If you ask him about the process of implementing Google for Education in Sollentuna, he says it ran very smoothly.

"We had some problems printing from the different devices, but that's about the only thing", he says.

The experience is that the IT department had a relatively easy job implementing the platform.

"I think we've found a very feasible compromise between the ease of use, educational freedom and a thing like security", he says – noting that the IT department seems comfortable tending to the infrastructure and adhering to the the needs of Sollentuna users.

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### About Google Apps for Education

Google Apps for Education is a suite of free, secure tools that includes Gmail, Calendar, Sites & Documents. Use it for collaboration and communication no matter where you are or which device you're using. Over 40 million students, faculty, and staff in schools around the world have gone Google with Google Apps for Education. You can learn more and sign up to try it out by visiting our website:

[goo.gl/3oZLEv](http://goo.gl/3oZLEv)

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### About Google Chromebooks

Chromebooks are designed to help students and teachers get things done quickly and easily. Devices are simple to manage at scale through a web browser. With several devices to choose from, it's easy to find a Chromebook that meets your students' needs. You can learn more here:

[www.google.com/edu/products/devices](http://www.google.com/edu/products/devices)

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Basically, the Sollentuna philosophy is that one should use the right tools for any job.

"If pen and paper is the best option, then we should go with that. But looking at our goals, Google for Education is a perfect match", says Andreas Cassne.

The use of Google for Education also led to the development of the 'Integrated Write to Read' (iWTR) method. The method was developed by Annika Agélii Genlott back in 2011 while working as a teacher. Presently she works as Research and Development Coordinator – writing a PhD in Informatics.

The IWTR method uses technology as a lever for literacy. The results of the method in use were astonishing. Seven year-olds performed much better in terms of literacy when they published stories that were read and commented on by others during the writing process. A pilot study was conducted, and published in 2013 in 'Computers and Education': <http://www.sciencedirect.com/science/article/pii/S0360131513000857>

At the moment the approach is being extended to include students of all ages. The extension has been dubbed 'The Write To Learn (WTL) method'. According to Annika Agélii Genlott, the data is at hand and indicates even more significant results in regards to literacy as well as mathematics – but the study has yet to be published.

These methods were developed from a pedagogical point of view. Google for Education tools were used to facilitate and make the formative or creative interaction between students and teachers possible.

"Google Drive and Google Sites made possible the kind of interaction needed for the methods to work", says Annika Agélii Genlott.

As of 2016, the extended method is becoming a national training program in Sweden that all municipalities can apply to attend. The WTL method will be used in all subject lessons. This is possible because of SKL (Sveriges Kommuner och Landsting), The Municipalities of Sweden.