



Early promotion of statistical literacy and Statistics Netherlands: CBS in the Classroom

Ms. Lieke Stroucken, Mr. Hans de Ruiter

Statistics Netherlands

Henri Faasdreef 312

2492 JP The Hague

L.Stroucken@cbs.nl / H.Deruijter@cbs.nl

+31 70 337 5353 / +31 70 337 4888

Abstract

In 2010, Statistics Netherlands (CBS) decided to approach the education sector as a separate target group. Young people form an important focal group for CBS; not only because they can make use of CBS resources for their school assignments but, on the other hand, so that they learn about the benefits CBS can offer in the future – whether they become users, respondents or future employees.

Our website element 'CBS in de Klas' (CBS in the Classroom) was created as a result. It offers free resource materials for teachers which they can apply in their lessons. This could be standard CBS content or material which was specifically developed for education, usually by external authors who are familiar with the knowledge and skills students must attain, and who have experience in writing lesson plans.

At present, CBS in de Klas offers teaching material to primary schools (mathematics, information skills) and to secondary schools (geography, economics, social studies and mathematics). For upper secondary level (havo and vwo) economics, CBS organises an annual school competition with students trying to accurately predict trends in the Dutch economy.

CBS in de Klas is an ongoing project. It requires continuous searching for more course materials and ways to capture the interest of educators. The development of digital course materials, social media and new examination syllabi offer great opportunities for CBS in de Klas as well.

Keywords

Statistical literacy, education, target groups



Approaching a special target group: education

In 2010, CBS decided to approach the Dutch education sector through a dedicated channel, CBS in de Klas (CBS in the Classroom). On the one hand, the project serves a short-term objective: to make students aware of the fact that they can look up CBS information and data for their assignments and essays. On the other hand, young people (students) form an important focal group for CBS, as *in the future* they will become our users (as students, journalists, policymakers etc.) as well as potential respondents and possible employees. Moreover, by committing ourselves to education, we demonstrate CBS' social engagement, a plus for our corporate identity.

The easiest way to reach a young audience is through education, and the most efficient way is through the teacher. After all, a large group of students (around 60 to 80) can be reached through one single teacher. Another advantage of communicating through the teacher is that the language of the content and the website does not have to appeal directly to young people. We also do not expect young students to look up CBS content on their own. This is why we go through teachers, as they can implement the content in class and provide extra information and explanation to their students where needed.

Continuous development

CBS in de Klas went live in December 2010 with content for secondary education on the subjects of geography and economics. Given that CBS publishes large amounts of data on economic growth, inflation and the business cycle as well as on population growth, ageing and regional differences in the Netherlands, these were obvious subjects to start with. Ever since, the content for these two subjects has been expanded and the range of subjects broadened to include social studies and mathematics as well as content for mathematics and information skills at upper primary level.

What we offer

On the CBS in de Klas website pages, teachers will immediately be able to see for which target groups (levels and subjects) we have content available. At present, this includes:

- Primary education: mathematics and information skills
- Secondary education: geography, economics, social studies, mathematics.

For primary education, we offer lesson materials to train upper primary students (ages 10 to 12) how to interpret graphs and tables and how to make their own graphs. Attention is also paid to incorrect graphs: 'How to lie with statistics'. The



short animation film 'On a normal day' is very popular. It shows all the things that happen on an ordinary day: how many children are born, how many people die, how many get married? Etc.

For secondary education, we offer materials in three ways:

- News-related: CBS news releases with figures on topics or themes which feature in the school curriculum. Although the releases are no different from what is published on cbs.nl, they have been pre-selected to fit in with the various curricula being taught;
- Tools: interactive visualisations, e.g. the population pyramid and the business cycle, or short films, e.g. on inflation and ageing. Teachers can incorporate these tools in lessons, but only as part of a bigger package. This means that the teacher has to provide introductions to these tools and come up with questions or assignments to go with them. We do offer some hints in this respect;
- Lesson plans: ready-made course material, compiled in most cases by external authors who are familiar with the curriculum and the required student competencies. Here, the teacher does not have to adapt the material but can implement it in class directly.

Within social studies and mathematics, we pay special attention to *digital literacy* and *statistical literacy*. In a world with a growing reliance on statistics and graphs, and an increasing number of people who can distribute content via social media, it is important to know how to make the distinction between reliable and not so reliable information. For instance, students can use a short checklist to decide whether research is reliable (e.g.: how did they find respondents, how many respondents took part?) or whether a particular graph is meant to influence the reader's perception (e.g.: does the y-axis start from 0, do you see illustrations instead of diagrams?). Nowadays, more attention is being paid to fact-checking in the education sector.

For mathematics, we have a free supply of large datasets which can let students perform 'simple' statistical analyses. This is related to the introduction of a new exam syllabus for upper secondary (havo, vwo) in which statistics have become a key component. Several large publishers have incorporated these datasets into their newly developed teaching methods.

For economics, CBS organises an annual school competition, the Economic Cycle Cup Competition (ConjunctuurBekerStrijd), with different groups of students trying to predict developments in the Dutch economy as accurately as possible. This involves predictions on ten different indicators including unemployment, GDP and house prices. The competition has been designed for



upper secondary. The winning group receive a surprise master class taught by our spokesperson and also get a nice prize.

Promotion continues to be important

We actively approach teachers to promote our CBS in de Klas project. For example, we place advertisements in trade journals for the education sector and promote the website via online newsletters for professional communities. In addition, we frequently organise presentations or exhibit at information fairs held during education conferences, where we distribute samples of our teaching materials. Every other year, we take up a booth at the Dutch National Education Exhibition, the country's most important fair for the education sector, attended by a large number of teaching professionals.

Although students are our ultimate target audience, teachers remain the chief and direct recipients. They must decide whether to use our materials in class. It is vital for us to hear their views, find out what help they need and learn how CBS can make a significant contribution. Teacher conferences and fairs are important events where we can come into contact with teachers and hear from them what they may need. At the same time, this is the right time to gauge how many teachers are familiar with CBS in de Klas and to whom it is still new.

Another important promotional tool for CBS in de Klas are the posters we produce each year for the various subjects. Teachers can obtain the posters free of charge for display in the classroom. They serve as a consistent reminder of CBS for teachers and students alike and the myriad possibilities CBS in de Klas stands for. And teachers are happy with the attractive posters to decorate their classrooms.

Channels for CBS in de Klas

CBS in de Klas is an integral part of our website cbs.nl. We chose not to create a separate website because in this way, CBS in de Klas can benefit from the high search results ratings of cbs.nl on Google. Furthermore, by providing content online we follow the current trend towards digitalisation. In addition, content will very easily be displayed on an interactive whiteboard.

Aside from our website, CBS in de Klas uses YouTube. We have produced various animated films on such topics as population ageing and inflation. All these films are on YouTube but are also available on our website. Starting this year, CBS provides vlogs to enrich news release contents. Likewise, these can be found on YouTube and are often re-used on CBS in de Klas.

The Economic Cycle Cup Competition makes use of Facebook in the period between the announcement of the forecasts and the final outcome, where we



provide updates to teachers with the running scores, the latest figures and video messages.

Another promotional tool is the corporate Twitter account of CBS.

The future for CBS in de Klas

What does the future look like for CBS in de Klas? As noted, the development of content and promotional activities keep moving forward. In the coming years, we would like to start offering course material for more subjects including history but also extend it to more types of education such as intermediate vocational schools (mbo). Additionally, the existing content for the current subjects can be expanded. This includes using opportunities to create new content following adaptations in the exam syllabi.

To take a concrete example of new content, let's look at StatLine, the online CBS databank. Many teachers are familiar with StatLine and use it to some extent, but find it hard to use and fully understand themselves, and even harder for the students. This has been an incentive for us to prepare a couple of lessons to show students how to look up information on StatLine, analyse tables and compile graphs.

Aside from this, we are seeking closer cooperation with the educational publishers. There are three major educational publishers in the Netherlands, and the vast majority of schools follow one of their methods. It would be valuable promotion for CBS to be quoted and used in these materials.

Conclusion

Education is and always will be an important target sector for CBS. We have noticed how *statistical literacy* is taking up an increasingly large role in Dutch education. Figures and *fact checking* are required to be able to separate fact from fiction. Through CBS in de Klas, CBS is showing its social responsibility. That in itself is highly appreciated, not only by teachers but by others as well. Through CBS in de Klas, we help young people gain better understanding of figures and better skills to interpret and apply these figures, now and in the future.