Flemish Community of Belgium: KlasCement

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Type of intervention: governmental (ministerial)
Website: https://www.klascement.net/

General description

In the context of the Covid-19 disruption, KlasCement, the educational resources network managed by the Flemish Department of Education and Training, has unfolded a number of initiatives to support teachers in their online teaching activities and professional learning. The network, created in 1998 and designed as a "community for and by teachers", targets teachers at all education levels, including teachers in adult education and student teachers. On KlasCement, teachers can share and use existing educational resources, including training ones, shared by other teachers or organisations and exchange with other teachers using the teacher forum.

Following the decision to close schools in March 2020 in the Flemish Community of Belgium, KlasCement started creating specific sections on its website devoted to distance teaching and learning, curated existing resources and asked commercial and non-commercial partners (e.g. school and student management system platforms, platforms with educational videos made by and for teachers, start-up companies providing tools to create online exercises, game-based learning platforms) to upload new content on relevant topics to support teachers (e.g. use of digital tools, video learning). KlasCement also proceeded with the redesign of a teacher online forum that was rarely used before the Covid-19 disruption but that appeared as an effective way of enabling teachers to exchange and help each other relative to more traditional methods of communication (e.g. emails). A third initiative unfolded by KlasCement has revolved around the organisation of webinars for teachers where they could learn and ask questions on a variety of topics related to distance teaching, the organisation of virtual classes with their students, student online evaluations, etc.
Between mid-March and end of April 2020, there were more than 3,000 new contributions on the network and more than 22,000 new members had joined KlasCement (Figure 1), a substantial rise relative to similar periods in previous years. Following first investments in a better server to provide higher capacity for webinars’ organisation, KlasCement also plans on further developing its networking features and enhancing its adaptability to each teachers’ needs and profile, using technologies such as Artificial Intelligence.

Main problems addressed

The Covid-19 crisis led to school closures in the Flemish Community of Belgium in March 2020. Since the announcement for school closures was made on Thursday 12 March and schools were closed on Monday 16 March, the educational community only had three days to prepare teachers for the transition to remote teaching and learning. In this context, KlasCement emerged as an effective option to support teachers in delivering digital education and ensuring the continuity of learning.

Lack of educational digital content. While KlasCement pre-existed the Covid-19 pandemic, many more teachers started working digitally and created and shared digital content. KlasCement proved to be a useful alternative for getting access to appropriate learning materials for teachers, as peer teachers created and shared their educational content, providing a variety of teaching methods.

Teacher community or practice. The network equally provided teachers with an easy option to discuss and share material. The moment teachers had to teach online, they needed more information and share experiences on how to best implement distance learning. KlasCement also aimed to provide support in this respect.

Supporting parents to help their children. While KlasCement mainly targeted teachers, parents also relied on the network during the health crisis. As schools were closed for several weeks, parents had to step up to support their children in their learning activities. KlasCement provided teaching and learning resources for parents to download to support their children. Unlike teachers, parents mostly heard about KlasCement through informal channels though.

Mobilising and developing resources

KlasCement is an educational resources network started in 1998 on a teacher-led initiative. In 2013, it was incorporated in the Flemish Agency for Educational Communication. Currently, KlasCement is part of the Communication Division in the Flemish Department of Education and Training. The network targets teachers at all education levels, including teachers in adult education and students in teacher education. More than 200,000 members were using KlasCement before the Covid-19 pandemic, including teachers from the Netherlands (around 14% of users).

The existing resources and infrastructure could thus be quickly mobilised when school buildings closed. Learning resources. On KlasCement, teachers can share resources they prepared or search for inspiration as well as resources from other teachers, while educational organisations can upload content or advertise their educational initiatives. Around half of shared materials are downloadable educational resources (e.g. lesson sheets, text documents with quizzes, mathematics or self-evaluation worksheets), while the rest include interactive exercises, articles, apps, software, videos as well as a number of training activities for teachers. The vast majority of resources are developed and shared by teachers, with a relatively small number being shared by other organisations or students. Resources are generally provided free of charge, shared under a Creative Commons license, although training activities can incur a fee when organised by external organisations (and possibly include other physical material, etc., not hosted by KlasCement).

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1 When an account is not used for a year, it is deleted from the network.
**Human resources.** The network is managed by a team comprised of moderators who monitor and publish educational resources submitted by users, web developers, and coordinators in charge of user experience, public relations and collaboration with external organisations. The moderators are about 12 part-time teachers, each responsible for a certain educational level or range of subjects. They continue to work as teachers as well in order to stay connected with what is happening in schools.

Their role is to check the language of the resources (spelling, etc.) or checks for easily identifiable mistakes. They also control the copyright of materials and add metadata before publishing the resources, to make them easily findable via an advanced educational search engine. Given the decentralised structure of the education system in the Flemish Community of Belgium and the design of the network as a “community for and by teachers”, the network team does not perform quality checks or provide suggestions on the pedagogical use of content. However, teachers can receive feedback from the community through ratings or replies to their material.

During the Covid-19 disruption, KlasCement unfolded three types of initiatives relying on the existing network:

1. **Curation of teaching and learning materials**

The team in charge of the network identified teaching and learning materials related to distance learning, video learning, digital tools, educational technologies, etc. that were already available on the network. This material was then put forward in specific sections, extra pages or videos on the network’s website dedicated to the Covid-19 disruption. More than 38 pages were created on themes related to distance learning, video lessons’ creation etc., targeted at teachers of all education levels.

To identify and promote additional teaching and learning materials relevant for teachers during the Covid-19 disruption, collaborations were established both with other sections of the Ministry of Education and with external providers, including three main commercial partners. While the team behind KlasCement does not create content itself, staff of the Ministry of Education can contribute with material that is then shared on the network. For instance, during the Covid-19 disruption, members of the Ministry created manuals, guidelines for parents on how to organise their home to create room for children to have an environment to learn, etc.

In addition, KlasCement also identified educational companies or publishers with interesting materials to help teachers during the disruption and invited these organisations to share their content. By creating their own KlasCement account (rather than having the KlasCement team share the material), external providers can change the content they share, monitor the reactions to the content and thereby become more aware of and involved in the use of their materials. Beyond the three main commercial partners of KlasCement, a number of other smaller companies, Flemish or international, started offering their tools for free until the end of the summer (e.g. an online platform for teachers to share exercises, game-based learning platforms). KlasCement collected these resources in a new section of the website and indicated to teachers that they could use the tools freely for a given period. In addition, KlasCement also started collecting and promoting manuals to guide and inform teachers on how to use these tools.

2. **Online teacher forum redesign**

While KlasCement already had an online forum where teachers could help each other, it was not used extensively before the Covid-19 disruption. During the Easter holidays, the three developers of the KlasCement team redesigned the existing forum to make it easier for teachers to support each other and discuss, as well as to exchange with experts, through a simpler question and answer format. Questions in the forum also revolved around how teachers could communicate with and engage children from socio-economically disadvantaged backgrounds facing additional difficulties during the school closure (e.g. lack of sufficient or high-quality ICT infrastructure at home).

The questions raised by teachers in the forum were then promoted in the next weekly newsletter of the network. KlasCement asked teachers if they knew the answers to questions identified in the forum and, if they did, whether they could provide these answers in the teachers’ forum.
3. Webinar organisation

KlasCement started organising webinars to answer teachers’ need for support with respect to the implementation of distance learning. The network team chose general topics related to distance education (e.g. tools for distance educations). When subscribing as well as during webinars, teachers could ask specific questions regarding the chosen topic and thereby orient the discussion to their own areas of interest. To organise the webinars, KlasCement could rely on the extensive knowledge and skills of a colleague who had previously guided schools in implementing their digital education strategies.

Webinars were organised 3-4 times a week. While at the beginning of the school closure, questions focused on the use of educational tools, later on questions touched on a broader variety of areas (e.g. creating online learning paths, student evaluations, organisation of webinars by teachers). Seminar presenters were either part of the KlasCement team (as some IT co-ordinators in schools are partly working for KlasCement) or from the Ministry of Education. In addition, KlasCement also invited pedagogical advisors to intervene in some webinars, usually building on earlier cooperation with them in other projects.

Following the development of the webinars during the school closure, the Ministry of Education invested in a new server for KlasCement webinars. Since then, KlasCement has also been providing training to colleagues in the Ministry of Education. The webinar has become an extra component of KlasCement for teacher professional learning.

Fostering effective use and learning

KlasCement seeks to act both as a source of inspiration for teachers and as a tool for professional learning, as teachers can learn from the materials shared by their peers and the network includes a number of training activities for teachers. A majority of teachers report that they download the content available on KlasCement to get ideas for their own teaching and then adapt it to their pedagogical needs. In this respect, the KlasCement team motivates teachers to download the content and share it again if they remix, make changes or add additional content in the meantime.

Moreover, the network team also examines the most popular teacher profiles on the network and tries to stimulate teachers to share materials, not only by asking them but also by giving symbolic incentives (e.g. tickets for cultural events). While the quality of the content itself is not checked, the team managing the network checks whether the content is very popular among teachers or fills a gap. If this is the case or teachers engage very actively and effectively in the teacher forum, the platform grants again symbolic rewards to contributing teachers.

KlasCement also allows external providers to share content and add teacher training opportunities on the network, and a promotional newsletter allows such organisations to advertise their offer (in exchange of a fee).

The information collected by KlasCement on teachers’ navigation supports KlasCement in adapting to teachers’ needs by promoting materials that teachers will likely need for their lessons in subsequent periods, etc. This makes the platform more attractive. A teacher who visits KlasCement today still has to search for inspiration for his lessons next week. In the future the platform will recommend content tailored to teachers’ needs at a specific point in time.

Implementation challenges

Implementation challenges during the Covid-19 disruption mostly lay in ICT infrastructure tools as well as the need for the team to coordinate the work on the platform remotely.

On the one hand, the teacher forum had to be redesigned to allow for more effective and easier exchanges between teachers. On the other hand, due to privacy-related issues, KlasCement had to stop using the video and audio platform chosen initially for the organisation of the teacher webinars. The transition to a new video and audio platform had to be done rapidly, triggering additional challenges (e.g. server
availability, search for an open source solution). In the light of this experience, the government subsequently decided to invest in new tools and the acquisition of a server to facilitate the organisation of webinars and other similar activities.

One additional challenge related to the coordination of the network in a remote way. Due to restrictions associated with in-person work, the team had to change the way in which the team members exchanged, fine-tuned network features or simply communicated with each other to solve network-related issues. Coordinating work on KlasCement remotely, with limited social contact between team members, was another challenge associated with the Covid-19 pandemic.

Monitoring success

A number of indicators have been collected during the Covid-19 crisis regarding teachers’ use of the network. Between mid-March and end of April 2020, there were more than 3000 new contributions on the platform, shared by almost 2000 members, with an average of 500 new learning resources every week (Figure 1). More than 22 000 new members joined KlasCement throughout this period, a substantial rise relative to similar periods in previous years. In addition, more than 50 discussions were initiated in the teacher forum.

In addition, KlasCement relies on data analytics to investigate and identify which pages are more the most popular, track keywords and predict what teachers would be searching for in the following periods. These analyses allow preparing and adapting the content of the KlasCement newsletter to the topics of interest of teachers.

Figure 1. The use of KlasCement during the Covid-19 pandemic

Source: KlasCement.

Adaptability to new contexts

While more than 80% of resources on KlasCement are in Dutch, there are also resources available in English, French and German and a relatively smaller number in other languages. The network uses the Flemish educational system' curriculum and terminology but when teachers from the Netherlands register on KlasCement, the list of subjects, educational levels, terminology, etc. from KlasCement are automatically adapted to the educational system of the Netherlands. In addition, KlasCement has already
participated in a number of initiatives to support the development of similar networks in other countries and is also involved in a network to exchange with and learn from networks in different countries (European Schoolnet - Educational Repository Network).

The network existed well before the Covid-19 pandemic, and its initiatives will continue in the aftermath of the crisis. KlasCement is likely to benefit from a number of changes to enhance its use though. The Covid-19 crisis has emphasised the importance of connecting teachers and providing them with a network where they can discuss, support and learn from each other. KlasCement will therefore focus on improving its networking features by enhancing the teacher forum and by relying even more on the expertise of teachers, for example by making it possible for teachers to follow each other. To further refine its networking features and to increase the adaptability of the platform to each teacher users’ needs and profile, KlasCement is currently collaborating with external organisations that bring expertise in the area of Artificial Intelligence and User Experience.

The main idea of KlasCement is easily adaptable to other contexts than Flanders. It assumes some access to a good ICT infrastructure. However, one of the key features for the implementation of KlasCement lies in the trust placed in teachers and in the quality of the content they share. KlasCement has functioned as a bottom-up initiative by teachers and for teachers, and it became part of the Ministry of Education after being voluntarily run and coordinated by a non-profit organisation for more than a decade. The trust put in teachers is reflected, for instance, in how materials are shared on the network, with the team managing the network only checking copyright and spelling mistakes before publishing the material. Trusting teachers, the materials they publish, their reviews and questions shared on the website is at the core of the networks’ implementation. While this trust already existed in the case of KlasCement, it is key for any adaptation in other countries.

**Key points to keep in mind for a successful adaptation**

1. Involve teachers from the onset to develop a sense of teacher agency in using, contributing to and learning from the network.
2. Invest in high quality IT infrastructure (e.g. server capacity, website and search engine design) to support the network.
3. Rely on a network support team of teachers who are responsible for curating resources, making content easily available and identifiable, communicating with and identifying external partners, etc.
4. Join educational repository networks to share good practices and learn from what similar network developers are doing in other countries.

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