

CASE STUDIES AND BEST PRACTICES IN SWEDEN

Erasmus+ KA2 project: “REACT - Creation of a Collaborative Environment in e-classrooms”

Intellectual Output 2 “Creation of a set of innovative activities, tools and educational collaborative methods adapted to a virtual classroom curriculum”

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Case Study 1 – Hybrid Teaching during Covid-19 Pandemic

INTRODUCTION

When during the Covid-19 pandemic many schools were closed or could only work with a limited number of students at a time, Swedish secondary and VET schools saw a need for quick adaptation of their teaching strategies. Grillska gymnasiet and Lerums Gymnasieskola showed good examples of adaptation to hybrid teaching and successful digitalization.

OVERVIEW

Grillska gymnasiet in Västerås is a secondary school offering college preparation and vocational programs to its 400 students. The school had already been preparing a larger digitalization project before the pandemic. In 2020 with partial school closures, the Board of Directors of the foundation, head teachers and faculty staff were therefore well prepared to take quick decisions to adapt the classroom environment to digital formats.

A second school that thoroughly analyzed its experiences of hybrid teaching during the Covid Pandemic is Lerums Gymnasieskola with around 1300 students.

An important precondition that favored the transition to hybrid teaching at Grillska Gymnasiet was the availability of technology. All students were equipped with their own computers and teaching staff was already familiar with the digital working environments.

At Lerums Gymnasieskola, teachers initially faced many challenges in combining online and offline communication in hybrid teaching. However, they adapted to the new environment and developed viable solutions through their experience.

During different phases of the pandemic, at both schools teaching methods varied between teaching with the students physically present, fully remote teaching through online classes, and hybrid teaching with part of the class present in the physical classroom and part of the students present virtually.

The main learning platform chosen for the online environment was Google Classroom. For synchronous teaching, students and teachers met on Google Meet video conferencing system. As a second communication channel, text chat and email were used to communicate asynchronously. Students worked on their tasks either directly through integrated tools like Google docs or calculus, or uploaded tasks done with pen and paper as photo to the platform.

APPROACH

During the implementation of online and hybrid teaching, the two schools faced a number of challenges.

1. The use of technologies makes it hard for the teaching staff to focus on their pedagogical role.
2. It can be challenging for teachers to combine two forms of communication at the same time (online and offline). There is a high chance of students separating into two “teams”, making it difficult to maintain a common class dynamic.
3. Virtual participants are easily overlooked or unheard. Teachers need to pay special attention to maintain the participation of quiet students.

The teachers at Grillska and Lerums Gymnasieskola who were confronted with these challenges developed successful strategies to overcome the barriers.

Technological support and pedagogical roles

Lerums school found the ideal solution in deploying two teachers in the classroom to match the greater demand of focus required to keep all students (physically and virtually) engaged in class. One teacher would be responsible for the pedagogical implementation of the class while the other teacher took responsibility for managing the technology and coordinating virtual interaction. If a second teacher was not available, one or more student representatives were chosen to support the technological setup. This way, the students themselves were involved in maintaining the hybrid environment which could benefit their sense of responsibility and participation.

Distance and hybrid learning are being understood by the two schools only as complementary to the regular classroom. Students and teachers do therefore not have to create entirely new learning strategies but instead the hybrid aspects become a regular part of teaching in the classroom.

The successes at Grillska school have additionally shown the importance of good communication and cooperation between directive and educational staff. Aligning institutional planning, fund allocation and educational strategies is a crucial factor in creating the necessary technological conditions for the teaching environment.

Combining dual online and offline communication

The teachers’ concern during hybrid lessons was a division of the class into two groups – virtual and physical participants. The equality of participation showed to be easier to maintain if all students are present in the virtual environment. A solution that was applied in many classes was to have physical students also join the virtual environment through individual screens. In this way, each student could be seen and interaction could be maintained with each student in the same way.

Aside from the video conferencing tools, asynchronous elements were applied for individual tasks and work in smaller groups. Students were given the possibility to look at recordings and explanations of the course contents at home, while the time with the teacher in presence was used to focus on open questions and bigger group discussions. A clear and simple

communication on the use of the different tools and platforms was crucial for students to understand and live up to the new expectations.

Engagement of virtual students

The digital tools available in Google Classrooms were a central aspect of student engagement in the virtual environment. Students were asked to upload their work done at home to the platform. This not only helped students to connect and communicate on common tasks but also made it easy for teachers to track the students' work progress and respond, give feedback and respond to questions.

During hybrid classes, teachers found that they needed to remind themselves to keep paying attention to virtual participants and not focus only on physical students. Setting a timer helped to regularly check in with and address the virtual students.

Some teachers stated to miss the usual reactions of the physical classroom, like facial expressions, nods or humming, that provide important feedback on their classes. They encouraged such emotional reactions also for virtual participants through chat and the use of mentimeter or similar digital feedback tools before, during and after classes.

RESULTS

- The pandemic and need for online learning spurred up the digitalization that was already underway at the Swedish schools.
- The urgency of the situation encouraged teachers to stay in close contact for regular evaluation and adaptation of teaching strategies which proved important in facing the resurging challenges.
- Online learning holds benefits as well as challenges for students and teachers. Disadvantages encountered by the students included a lack of social contact that for many is a central aspect of school life. This resulted in lower motivation for many students. A challenge for teachers was especially the involvement of quiet students in the virtual environment.
- Some students actually preferred to be able to learn from home sometimes as it ensured a calmer learning environment without necessity for social involvement in groups outside of the lesson and less distraction. For many students, saving usual commuting time was a clear benefit of online learning.
- Students were more involved in the classroom environment by taking up responsibilities (such as technological support) themselves. They developed an understanding of organizing learning that went beyond the usual focus of acquiring learning content.
- Students' academic achievements were similar after 5 months of remote schooling as they had been before the pandemic, indicating that the arising challenges have been addressed well.
- Virtual elements in teaching made it easy for teachers to follow students' work in real time, comment and help.
- A higher number of recorded presentations and lectures made it easier for students to use lesson materials in preparation for exams. Especially the Mathematics online lessons at Grillska school have become very successful. Months after regular classes have been reestablished again, the online lessons still attracted students even from beyond the school's own

population. The lessons are being continued for all interested students and have over 1500 attendees daily.

CONCLUSIONS

For the successful digitalization of learning environments it is crucial that school board and teaching staff work together closely and align their strategies. A good technological set up and preparation of the teachers for the online environments are an important prerequisite. Continuous monitoring and regular communication supports the transition process.

An important lesson learned from the two presented schools has been the importance of regular evaluation of teaching strategies and flexibility to adapt to new challenges, both on technological and pedagogical level.

Some virtual teaching aspects have proven a successful integration to the regular classroom environment. Even in times where physical teaching is used as main method again, flipped classrooms and recorded video lessons have been shown to be useful and strongly appreciated by students.

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[Grillska Gymnasiet – Västerås | Grillska Gymnasiet](#) (Website)

[Lerums gymnasium | Lerums kommun](#) (Website)