



Cross-border interaction with flipped learning as the connection

In the world of education, there is a wide variety of instructional strategies and processing methods to optimise learning. One example is flipped learning. This variant of blended learning means that pupils work with the instructional material outside of class time so they are well prepared to go into greater depth during the lesson. The concept of flipped learning sounds promising, but many teachers ask the question: how do you get pupils to actually study the material at home? In this contribution we share some experiences and results of the Erasmus+ project Flipped Impact with the aim of providing insight into the elements that can contribute to making flipped learning a success.

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Over the past three years, researchers, teachers, students and pupils from Lithuania, Spain, Turkey and the Netherlands have been working on the Erasmus+ 'Flipped Impact' project. Flipped Impact is a research-based project in which the concept of 'flipped learning' is used to enhance understanding. It is often thought that flipped learning only consists of sharing and watching online video material. However, according to Bergmann and Sams (2015), there are few barriers and flipped learning can be used in many different ways.

The Flipped Impact project investigates how English language acquisition for lower secondary students can be promoted and stimulated using flipped learning. Attention is also paid to the acquisition of intercultural competences and 21st century skills. From the Netherlands, PJ Leeuwarder Lyceum and the teacher training department of NHL Stenden, both located in Leeuwarden, are participating.

The project plan for Flipped Impact is structured in such a way that during the project period the project partners meet twice a year to share research results, new findings and teaching materials. These meetings are called LTTs (learning, teaching, training). Pupils and teachers from the participating schools are involved in these projects to get to know the different cultures of the participating countries and to test the developed teaching material together. This also applies to teacher trainers and student teachers. The student teachers have a special role in this project; they develop the innovative online flipped instructional material.

The use of flipped learning was given extra priority in March 2020 when countries worldwide went into lockdown one by one because of the Covid-19 pandemic. In education, too, there was no escaping it: work had to be done online. Students and partners in the Flipped Impact project could no longer meet physically to share their culture, flipped materials, and experiences as before. This meant that both the 2020 LTT in the Netherlands and the 2021 LTT in Spain had to be designed to fit an online format. Instead of visiting touristic highlights in Friesland and Spain with the group of pupils, an online format had to be devised which included both the linguistic and intercultural aspects. This put even more emphasis on increasing the motivation and commitment of the pupils when they had to prepare parts for their participation in the project from home in their own time. For reasons of accessibility and security, it was decided to make use of <https://www.myschoolsnetwork.com>, the platform developed by NHL Stenden that connects schools worldwide and where student teachers can develop innovative and interactive teaching materials.

Research during the first year of the project showed that too many of the students had not, or not sufficiently, prepared themselves with the Flipped Courses that were offered. According to Parra and González (2020), improvements can be achieved by enriching the Flipped Courses with a mix of gamification and scaffolding. The combination of reward and competition by means of gamification seems to increase task motivation (Post, 2020) This is how the idea of a guessing game (see figure 1) (<https://www.myschoolsnetwork.com/projects/guess-who-or-what-ltt>) was conceived.



Figure 1

During the guessing game, the pupils had a famous person or cultural object in mind that the other group members had to guess by means of closed questions. During the preparation pupils practise asking questions in English via a Flipped Course. This in turn enables them to ask more questions during the guessing game and makes the game easier to complete. Our research showed that 82% of the students had prepared via the Flipped Course, a significantly higher number than during our preliminary research.

Finally, the students applied all they had learned by doing a digital scavenger hunt along the eleven cities of Friesland in mixed groups, guided by the student teachers. The evaluation among the 46 participating students showed that they had found the entire programme very enjoyable and instructive; the students gave the programme of the entire day an average grade of 8.6.

The success of the flipped material of the LTT Netherlands served as a foundation for the programme of the LTT of Spain and eventually for the Flipped Impact Suite (<https://www.myschoolsnetwork.com/projects/flipped-impact-suite>).

(See figure 1). In three new flipped courses, students prepare at home and individually with differentiated assignments and gamification for two interactive final assignments. The assignments are based on Neuner's exercise typology, which means that the students work in four phases on assignments that are built up from receptive to productive (Brans, 2019). The three flipped courses focus on social interactions in the English language based on CFR level A2. The three Flipped Courses are divided into three projects that train the past tense, the present tense and the future tense.

The format of our approach is basically the same each time, only the final assignment as a meaningful activity differs. The students always start with a baseline test through which they get an idea of the knowledge they already have and the parts they find difficult. They are then given a recommendation as to which assignments in the Flipped Course they need to complete in order to be well prepared for the final assignment. This goal-oriented approach, in our view, increases motivation. When students have completed these assignments, they can use gamification to practise asking and answering questions in the correct tense. The pupil then arrives at the point where they are well prepared for the final assignment.

The online escape room

During the LTT in Spain, the use of the past tense was focused on. The students were given the task to escape from an online escape room (see figure 2). The story consists of a hacker who has hacked into and stolen the history of the four participating countries in the Flipped Impact project plus the United Kingdom. In doing so, he has encrypted the historical facts and it is the task of the pupils to combine their knowledge of the history of the different countries to defeat the hacker in ten different encryptions. Because the escape room is about history, pupils have to use sentences and words in the past tense, knowledge they have learned and practised in the Flipped Course. In each encryption, pupils must complete missing information from important historical events and solve a riddle. With each completed encryption of the escape room, the pupils obtain a part of the code. This code consists of numbers; when all numbers have been found, they can be converted into letters. The ten letters together form a word, when the pupils fill in the correct word and pass it on to the teacher they beat the hacker and have escaped from the escape room.

(<https://www.myschoolsnetwork.com/projects/escape-room>)

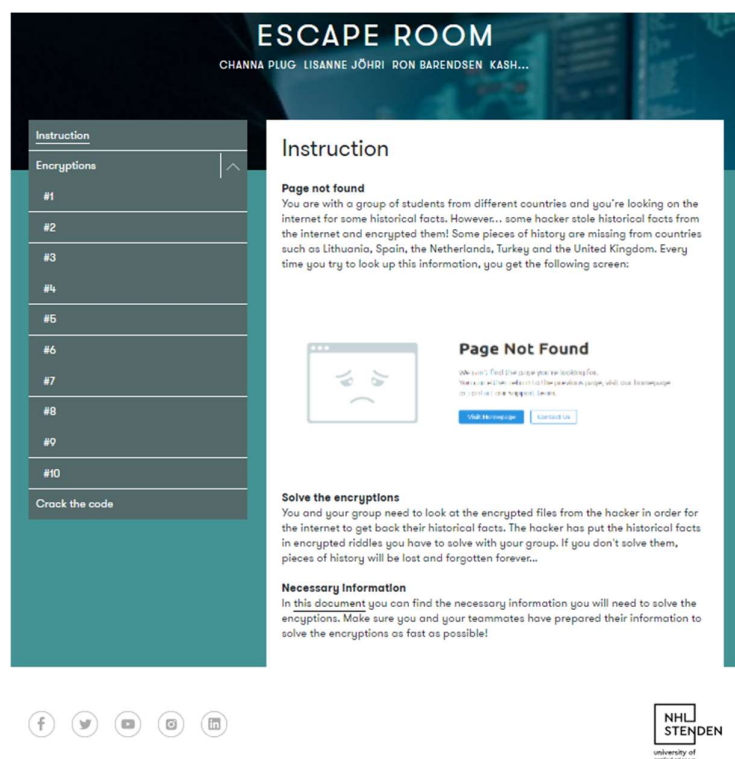


Figure 2

The execution

On 27 September 2021, the time had come: online MS teams were formed with two to three students from each country. The teams were introduced to each other shortly before going through the escape room. The application of language strategies and intercultural competences was again at the heart of this LTT. In addition, the team had to use qualities such as commitment and solution-oriented thinking to complete the escape room. The teams were guided during the escape room by student teachers from the four participating countries, who were thus able to work on their teaching competences in an innovative way.

The results

The Dutch and Spanish online LTT were evaluated extensively via an online survey. The student survey (n 46) showed, among other things, that the majority of the students had prepared for the escape room by means of the Flipped Courses (see figure 3).

8. I used the course to prepare myself

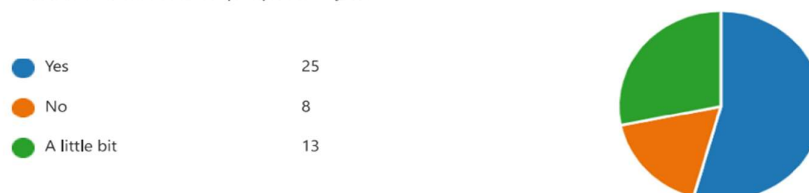


Figure 3

They also indicated that they had learned a lot about the history of the countries and that communicating with pupils from foreign language speaking countries added value to their learning of the English language. For example, one pupil gave as feedback:

"Thank you for bringing all four different countries together and fusing us with a language that is actually no one's mother tongue".

The survey of student teachers revealed that most pupils were involved in the group work. They also indicated that most pupils had prepared themselves. They based this on the ease with which the pupils were able to ask and answer questions in the past tense. The pupils already had a lot of knowledge about the different countries through their preparation and they did not have to look up much information. In addition, the guides indicated that the assignment was a good exercise for cooperation and communication; the pupils all used sentences in the past tense. The concept of flipped learning was highly appreciated as an effective didactic approach by these future teachers.

Conclusions

From the Flipped Impact project it could be concluded that the designed material is applicable within the flipped learning methodology (see figure 4). The question of increasing the commitment of students when they have to study material at home was answered by means of two elements: First of all, the intrinsic motivation of pupils was addressed by incorporating the final assignment in the form of guessing games, an Eleven Cities scavenger hunt and a digital escape room. Pupils prepare themselves when there is a need. This was combined with a form of extrinsic motivation due to the fact that the pupils had to cooperate with pupils from other countries. Since all participating schools have different mother tongues, each pupil had to prepare for the fact that knowledge of the English language was necessary to communicate within the groups. If they had not properly prepared, they would have been less able to express themselves and less able to cooperate during the escape room.

In addition, elements such as variation, differentiation and interaction have also been important in the successful application of the flipped learning method. We believe that varied, interactive and differentiated flipped learning material in combination with a powerful processing assignment are important success factors. These insights have since been implemented into the curriculum at NHL Stenden's teacher training department, where MySchoolsNetwork is seen as a powerful development tool.

FLIPPED IMPACT WERKWIJZE

LTT NEDERLAND

FLIPPED COURSE VOORBEREIDING

De Flipped Course bereidt leerlingen door middel van receptieve en reproductieve opdrachten voor op de verwerkingsopdrachten. De leerlingen doen een nulmeting en aan de hand van deze resultaten krijgt iedere leerling een advies voor de hoeveelheid oefeningen die nodig zijn voor een goede voorbereiding. Door gebruik te maken van differentiatie krijgt iedere leerling een voorbereiding op maat.

LTT SPANJE

FLIPPED COURSE VOORBEREIDING

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REPRODUCTIEVE OPDRACHT: GUESSING GAME

De reproductieve opdracht bestaat uit een guessing game die is samengesteld uit beroemde personen en objecten uit de deelnemende landen. De leerlingen kiezen van te voren een beroemd persoon en object uit en door middel van het stellen van gesloten vragen kunnen de groepsleden deze keuzes van elkaar raden.

REPRODUCTIEVE OPDRACHT: GUESSING GAME

De reproductieve opdracht bestaat uit een guessing game die is samengesteld uit keuzes die leerlingen willen maken in de toekomst. De leerlingen kiezen van te voren een huisdier wat ze later willen hebben, een toekomstige baan, droomvakantie en woonplaats. Door middel van gesloten vragen over de toekomst kunnen de groepsleden deze keuzes van elkaar raden.

PRODUCTIEVE OPDRACHT: SPEURTOCHT

De productieve opdracht bestaat uit een interactieve digitale speurtocht door Friesland. Leerlingen zijn in internationale groepjes bezig met het beantwoorden van vragen over de elf steden van de Elfstedentocht. Bij elke juist beantwoorde vraag krijgen de leerlingen een digitale stempel. Om alle stempels te verzamelen en de tijd op de klok te stoppen moeten de leerlingen alle vragen juist beantwoorden in een Google Forms en deze opsturen.

PRODUCTIEVE OPDRACHT: ESCAPE ROOM

De productieve opdracht bestaat uit een interactieve digitale escape room. Leerlingen zijn in internationale groepjes bezig met vragen over de geschiedenis van de deelnemende landen. Hierbij moeten ze gezamenlijk raadsels oplossen om cijfers te bemachtigen. Met de verzamelde cijfers kan een gecodeerd woord gekraakt worden om de escape room te ontsnappen en de tijd op de klok te stoppen.

Figure 4

Reference list

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