



Design Pattern



Design Pattern (english version)

- Students don't watch the videos/Make up missed homework in class
- Students explain content
- Students produce videos
- collaborative writing and composing with wikis
- Students analyse videos





Flip Your Class!

Design Pattern

Make up missed homework in class

Context

In the traditional Flipped Classroom students receive video lessons or other edited digital material to work through and prepare for the upcoming lesson.

Problem

Students that did not do their homework and come therefore unprepared to class, are probably not able to solve the given tasks. This often leads to classroom disruptions. The unprepared students need attention and support, that might be needed (for example) by students with learning problems.

Influencing factors

The students do not make their homework, either because they see no point in it or they do not face the consequences.

The students have permanently or temporarily no access to an electronic device and are therefore unable to watch the video lessons.

Solution

The students get the opportunity to watch the learning videos individually during class time, in order to make up the missed homework.

Further aspects / Examples

In a teacher's classrooms the students have to watch the learning videos on their own or classroom devices during class. Additional the students have to take notes, which they show the teacher afterwards. The notes are a feedback, if the key ideas of the learning video were understood. Another test are the comprehension questions, that were added at the end of the video.

An alternative would be to send the students to the computer lab, where they can watch the learning video but miss what is happening in the classroom. Afterwards the students are tested with an oral exam.



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Advantages /Disadvantages

The ideal scenario is that the students realize the importance of doing Flipped Classroom homework as one's own responsibility.

In many schools computer rooms are not always available and most of the time not directly nearby the classrooms, this circumstance is especially for younger students not suitable because they should not be left by themselves.

Tools

Several tablets and PCs that students can use to watch the learning videos individually. Depending on the school regulations the students can also bring their own devices.

Related Pattern

Students explain content

References

Christian Spannagel. Was tun mit unvorbereiteten Schüler*innen? Online:
<http://flipyourclass.christian-spannagel.de/2016/06/was-tun-mit-unvorbereiteten-schuelerinnen/> (14.06.2016).



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The students do not make their homework, either because they see no point in it or they do not face the consequences.

The students have permanently or temporarily no access to an electronic device and are therefore unable to watch the video lessons.

The students only skim the video and the important content is not picked up.

Solution

At the teaching entry the students are asked to pose a question about the video content that is answered by classmates and discussed in class. The video will not be watched in class.

A key aspect of this approach is to not repeat or discuss the entire video, because otherwise the video as "homework" loses its purpose.

Further aspects / Examples

The replies and discussion can be conducted through a method called "active plenum" at the beginning of class. The questions are collected on the blackboard and one student operates as moderator through the process by organizing the replies and discussions.

Advantages / Disadvantages

Students that watched the learning video as preparation for class, get the opportunity to explain the video content in their own words and therefore process the new skills in more depth.

Tools

Possibly blackboard, whiteboard, Smartboard, tablet

Related Pattern

Make up missed homework in class

References

Christian Spannagel. Was tun mit unvorbereiteten Schüler*innen? Online:
<http://flipyourclass.christian-spannagel.de/2016/06/was-tun-mit-unvorbereiteten-schuelerinnen/> (14.06.2016).

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Design Pattern

Students produce learning videos

Students reach a deep understanding by explaining.

Category: in school/homework – learning videos made by students

Context

There is the possibility in Flipped-Classroom-Setting for students to produce learning videos for their own class or for younger students.

Influencing factors

The method 'learning by teaching' (Martin, J.P.) is combined with flipped classroom. The students produce a video instead of making a presentation for their classmates. Learning by teaching would include further a peer to peer process, in which the students would organize the lesson and support their classmates in the learning process.

In this scenario the students often only produce the videos while the teacher facilitate the setting of the learning process and video production.

Problem

In the traditional instruction students speak little compared to the teacher. In the Flipped Classroom it depends whether the teacher uses a student centered (flipped learning) or a teacher centered approach. Constructivism says that each individual constructs the knowledge in an active way.

Solution

The production of student learning videos is one method to stimulate the construction of knowledge. Students have to search information and to understand their topic very good to produce a video.

Further aspects/Examples

First the teacher gives a summary about the milestones (information phase, writing the script, preparation, production and post-production). Additional agreement letters of students and their parents need to be collected, if videos should be published. The teacher can form groups with parents' agreements to publish and groups with denied parents' agreements.

The teacher also should work out criteria of good learning videos and hand them out to the students, before starting. The production of the videos can take place in class or as homework. The teacher should give feedback to the scripts before production. If the videos should be published the teacher gives an introduction of copyright and checks the compliance. It is recommendable to put this in the letter of agreement. If students need

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pictures (e.g. building the proprietor has to agree), music or text it is easier to produce this by themselves or use creative commons. The teacher can also introduce technical terms of video production.

In the preparation phase the students practice their text and check the technique (video and audio!). It is important to have enough light, to put the camcorder (smartphone or tablet) on a tripod and to have good audio (use an external microphone or an audio recorder). If the recording is without mistakes, post-production is not necessary. The post-production can be realized easily with the script and notes taking while producing.

Finally there is a presentation of the videos and feedback structured by criteria by peers and the teacher (maybe with assessment). For publishing the videos it is important that the quality is good and that copyrights are checked.

Advantages / disadvantages

Depending on the level of perfection the production needs a lot of time. If there is little time, the teacher has to inform the students about time limits in the beginning. Students are motivated to produce videos, but they do not want to write a script. The teacher has to give reasons. If there is a lot of time the teacher can let some groups work without script, so that they can recognize the importance. These students can justify for the next class why it is necessary to write a script. If the students do not want to appear in the video, it is possible to make a screencast or a stop-motion-video. Be aware that devices are charged and have enough storage space.

Tools

Video: Smartphone, camcorder or tablet

Screencast: laptop, tablet, interaktives whiteboard (Screencast-o-Matic,...)

Apps: iMovie, MovieMaker, VivaVideo

Related Patterns

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References

Martin, J.-P. (2002). „Weltverbesserungskompetenz“ als Lernziel? *Pädagogisches Handeln – Wissenschaft und Praxis im Dialog*, 6(1), 71-76.

Material

only in the german version available

Design Pattern

Collaborative writing and composing with Wikis

Students write collaborative hypertexts with text and multimedia content and by this means learn conducting in the public internet.

Category: schoolwork/homework – Wikis

Context

Wikis can be used in different subjects. Creative writing processes can be realized as well as minutes. Texts can be enriched by embedding multimedia content (pictures, small learning videos, interactive quiz, etc.). A visit to the school garden or a scavenger hunt in mathematics through the school building can be created within the context of flipped classroom. Process oriented writing is characterized by peer to peer feedback, suggestions for improvement and a positive fault culture.

Influencing factors

Wikis are a popular tool for knowledge management in companies to create internal or external databases of knowledge.

Problem

Collaborative writing processes with paper and pencil are difficult. Often there is a student responsible for writing, who does almost all the work.

In a word document it is only possible to see who writes what, if you switch on the track changes. There is no possibility to enrich it with multimedia content.

Solution

Wikis are a good possibility to realize collaborative writing. In addition the teacher sees who wrote a contribution. Wikis store versions, so you can restore a previous version, if something important was deleted.

Further aspects / Examples

In preparation for the implementation the teacher has to proceed as follows:

1. The teacher has to register in a wiki that is suitable for work with students.
2. The teacher has to work out the basic of writing hypertexts and copyright.
3. Meanwhile the teacher collects agreements, which contains the benefit and the code of conduct of parents and students.
4. Following the teacher signs in his students with nicknames, but he knows the students.
5. The students sign in the first time at home.
6. In class the teacher explains the work with wikis and copyright by a game.
7. The teacher and his students sign an agreement. Students promise to compliance the code of conduct and the teacher signs to help and coach the students.
8. Now the students get their jobs and start writing and composing.
9. The last ten minutes is always used for peer review and correcting each other's.

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Suitable topics are for example a visit to the school garden in order to analyze the characteristics of plants or a math's scavenger hunt which contains challenges with problems based on the position.

After brainstorming and structuring the project in class, the teacher creates a blank sub-page for each topic in the wiki. Following the students create preferably texts, graphics or photos, videos and interactive quiz to their article in partner work. Later on QR-codes for the articles can be created and put on the place in the building or the garden.

Advantages / disadvantages - consequences

The students transform from consumers to producers in the internet and thereby learn to apply copyright. If there are uncertainties about publishing content they ask classmates or the teacher. The teacher has to keep an eye on copyright and in case delete content or even block users.

The students learn a tool which is often used for knowledge management. They train how to write articles in wikis and thereby learn how Wikipedia develops.

The teacher has an overview of the articles and contributions of each student, because he has a list of nicknames and real names.

The work with wikis fosters a positive way to work with faults, because they are part of the process and continuously improved.

Students tend to have problems with signing in at first and need help. Sometimes they forget their password or pass it on to a classmate. Therefore the teacher needs to inform about handling passwords.

Tools

(only available in German)

Related patterns

Students analyze videos

References

(only available in German)

Material

(only available in German)

Students analyze videos

Students analyze by own or given criteria the quality of learning videos.

Category: in school/ homework – criteria for analyzing learning videos

Context

The teacher can use learning videos from others for his Flipped-Classroom. Searching adequate videos is time-consuming. Students can be coached to search good learning videos by a catalogue of criteria and increase their media literacy.

Influencing factors

More than half of the 12 to 19 years old students inform themselves by videos on YouTube (JIM Studie 2015).

Problem

Webquest-method in school is mainly based on texts. Students also need techniques to analyze other sources of information, like e.g. videos critically.

Solution

With this method students learn to analyze learning videos in a critical manner. Depending on the time available the students elaborate own criteria or use the given criteria.

Further information / examples

In class the teacher shows a good and a bad example of a learning video. Then students search and write down quality criteria. Following the students are asked to search learning videos to the actual topic in class or for homework. They copy and paste the link to a document and write a short text if the video complies with the criteria and why or why not. Then they write an overall evaluation.

Part of the task is also to comment a contribution of a classmate and give feedback. The students can use collaborative tools like etherpads or wikis to write the comments. In class the students make a ranking of the best videos. If there is no agreement, the teacher can discuss different preferences for learning. If a wiki or a blog is used students can regularly search good videos by criteria.

Advantages / Disadvantages

Students learn media literacy along the way and have a good and analyzed video to prepare for assessment.

In some collaborative tools it is possible to delete texts from classmates. The teacher has to talk with the students about policy agreement (do not publish private data, be polite, no insults).

Tools

Etherpad, wiki, blog



Design Pattern

Profil

Related Patterns

Collaborative writing and composing with wikis

References

JIM 2015 Jugend, Information, (Multi-)Media. Basisstudie zum Medienumgang 12- bis 19-Jähriger in Deutschland. Medienpädagogischer Forschungsverbund Südwest (Hrsg.) Online: http://www.mpfs.de/fileadmin/JIM-pdf15/JIM_2015.pdf (Abgerufen am 17.12.2015)

Bruder, R., Grell, P., Konert, J., Rensing, C., Wiemeyer, J. & Schwarzer, L. (2015). GMW-Workshop München 2015 Qualitätsbewertung von Lehr-Lernvideos. Online: http://www.kom.tu-darmstadt.de/fileadmin/Externer_Bereich/Research/e-learning/KATALOG_GMW2015.pdf (Abgerufen am 10.03.2016)

Material

only in the German version available