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Case-study technology and Flipped Classroom approach to teaching



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Plan

1. Relevance of the topic.
2. What is the flipped classroom technology?
3. The lure of the flipped classroom.
4. Pitfalls of the flipped approach.
5. Case-study and flipped classroom approach to teaching.
6. Conclusion.

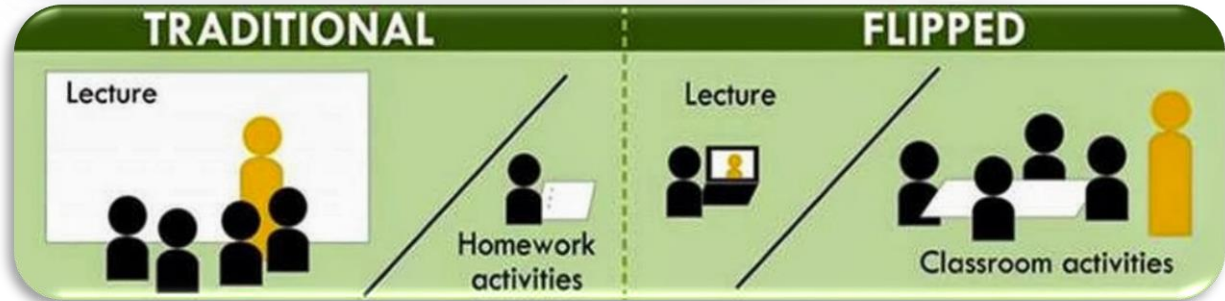


Flipped classroom technology



«The integration of ICTs empowers teachers and learners, transforming teaching and learning processes from being highly teacher-dominated to student-centered» (Trucano, 2005)

Guiding principle

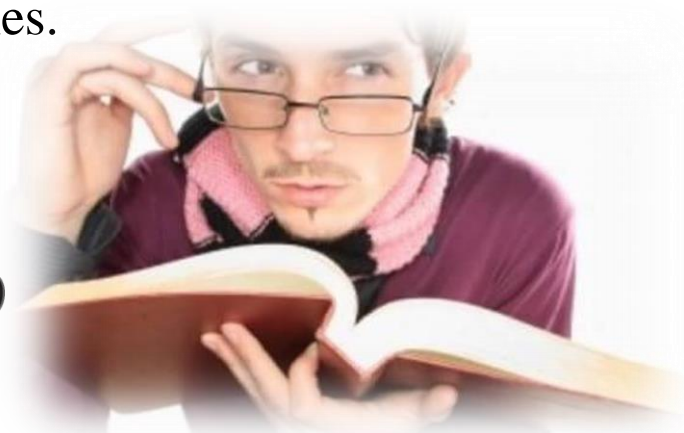


flipped or inverted classroom



The Benefits of the Flipped Classroom

- students move at their own pace;
- doing «homework» in class gives teachers better insight
- into students difficulties and learning styles;
- classroom time can be used more effectively and creatively;
- increased level of student achievement, interest, and engagement;
- learning theory supports the new approaches.



The Benefits of the Flipped Classroom

- more time to spend with students on authentic research;
- more time working with scientific equipment;
- students who miss class can watch the lectures while at home;
- “promotes thinking inside and outside of the classroom”;
- students are actively engaged in the learning process and liked it.



The Pitfalls of the Flipped Classroom

- Students have to do work at home rather than be first exposed to the subject matter at the university.
- Finding good quality videos is sometime a big problem for teachers.



Case-study in the flipped classroom

The teacher assigns an introductory video podcast the day before the class.



Students receive a set of guiding questions related to podcast to answer before class



In class, students get the first part of the case-study to work on and apply what they learned in the previous day's podcast.



After they complete the first part of the case-study, a second podcast is often shown in class to stimulate discussion, after which students are given the second part of the case.



Another podcast may be assigned that day covering information students will need to continue with the next part of the case in the next class period.



Flipped classroom typically has three main characteristics:

- the in-class learning environments are highly structured;
- the in-class activities engage a lot of active learning activities, making students to retrieve, apply, and extend the material learned outside of class;
- students are heavily incentivized through grading, in-class activities, and teachers' expectations to complete out-of-class work and attend in-person meetings.



Conclusion

The integration of case-study technology and a flipped classroom into the education process:

- leads to an increase of students' motivation and interest for studying physics;
- has positive impact on students' self-discipline and self-directedness;
- has a great pedagogical potential for both teachers and students.



References

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4. Chester, A., Buntine, A., Hammond, K., & Atkinson, L. (2011). Podcasting in education: Student attitudes, behavior and self-efficacy. *Journal of Education Technology & Society*, 14, 236-247.



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FOR YOUR ATTENTION!!!**

