

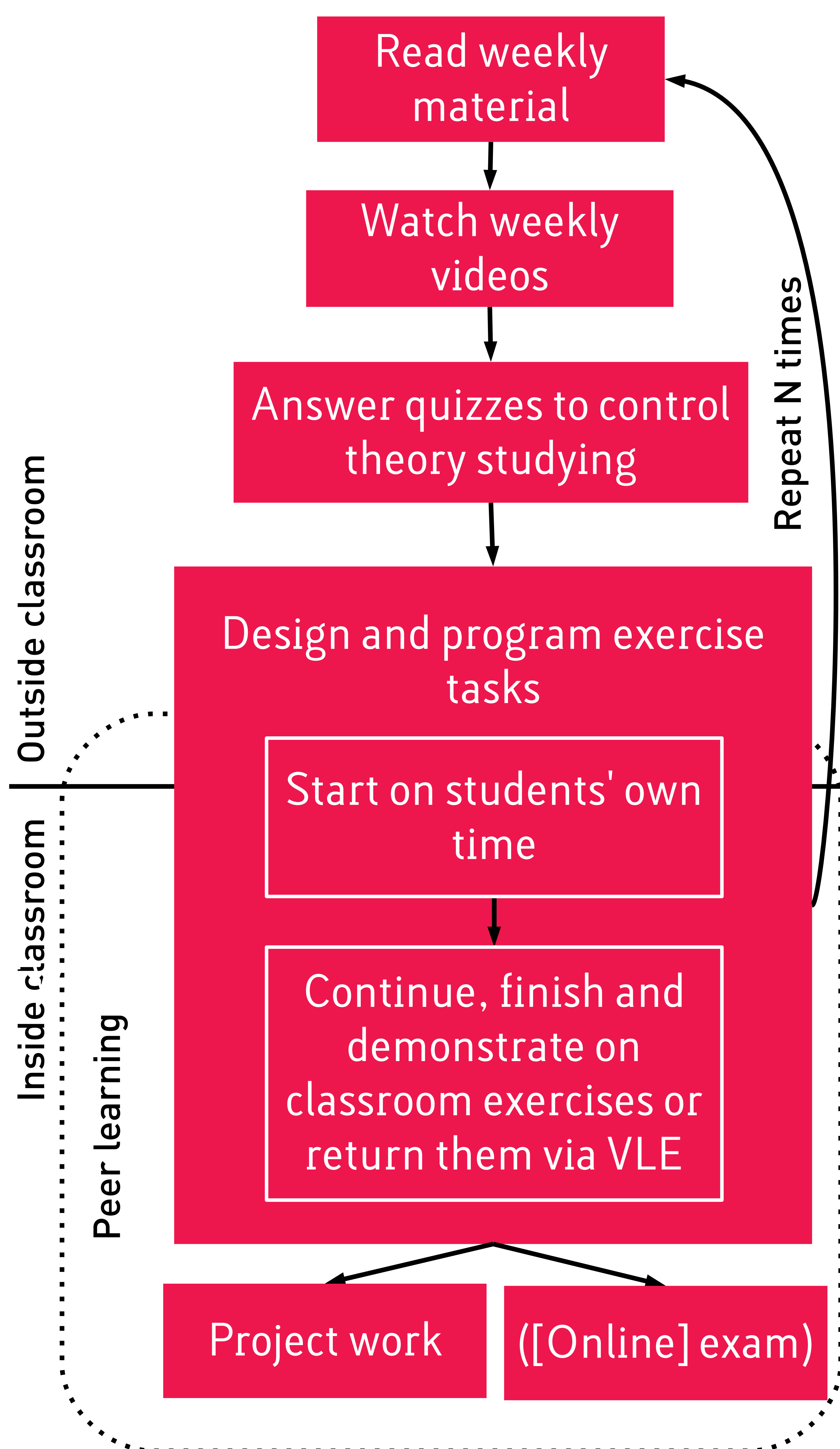
Teaching programming with flipped classroom method: a study from two programming courses

Flipped classroom teaching method, where theory is studied at home and exercises are done in the classroom, is gaining foothold in teaching. The method has been used with diverse approaches and guidelines.

Guidelines

- Create or curate videos in addition to text-based material
- Evaluate the material with other experts in the field
- Use weekly quizzes to evaluate the level of understanding and satisfaction of the students
- Strictly integrate the theory and material to the course
- Encourage students to engage peers both in-class and by reviewing each other's work
- Require students to start the weekly tasks before the exercises as preparatory work

Based on the literature (Bishop & Verleger 2013, Lage et al. 2000) and our observations.



The process flow utilized in flipped classroom learning in programming (adapted from Maher et al., 2015)

References

- Bishop, J.L. and Verleger, M.A. 2013. The flipped classroom: A survey of the research. ASEE National Conference Proceedings, Atlanta, GA (2013).
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- Maher, M. L., Latulipe, C., Lipford, H., & Rorrer, A. 2015. Flipped Classroom Strategies for CS Education. In Proceedings of the 46th ACM Technical Symposium on Computer Science Education, 218-223.