

Empfehlungen zur Durchführung von Blended Learning

Allgemeine Empfehlungen

- Lehrformat (Blended Learning/Flipped Classroom) in der ersten Stunde mit den Studierenden besprechen
- (digitale) Selbstlernzeiten in den Stundenplan/Modulhandbuch aufnehmen
- frühzeitige Bereitstellung der Lernmaterialien (bis zu zwei Wochen vorher, wenn möglich)
- Etablieren eines Belohnungssystems für rechtzeitiges Absolvieren der Aufgaben
- Einbinden der Erarbeitung der Studierenden aus der Selbstlernzeit in den Unterricht (Aufgreifen „schwieriger“ Themen, Abarbeiten von Fragen)
- Präsenzunterricht mit aktiven Methoden gestalten, um Erlerntes aus der Vorbereitung anzuwenden (Bearbeitung von Patientenfällen, klinische Fragestellungen, Think-Pair-Share, Buzz-Group-Diskussionen, Einbinden von Clicker-Fragen, Minute Papers)

Table 2. Student Perspectives on Best Practices for Blended Learning

Best Practice	Description
Setting the stage	Discuss blended learning on the first day of class; Include blended learning in the course syllabus and schedule, with due dates and grading information; Share estimated length of time for out-of-class activities; If time off is given for online activities, label that time in the course schedule.
Consistency with team teaching	Communicate consistently with students through the same mechanism; If different instructors use varying forms of blended learning (ie, different technologies or activities), describe in the syllabus.
Timeliness	Post materials at least 2 weeks prior to due date or class
Time on task	Consider time compensation (ie, cancellation of a face-to-face class) for online activities expected to take 15 minutes or longer
Accountability	Provide course credit (eg, completion points, quiz, assignment) for completing online materials on time
Structured active learning	Focus on application of material using active learning techniques during face-to-face class time; Examples include real-world patient cases, practice problems, think-pair-share and buzz group discussions, clicker questions, minute papers.
Faculty feedback on student preparation	Incorporate student performance on pre-class activities to focus the practice and discussion during the face-to-face session
Incorporating student feedback into the course	Incorporate student suggestions into the class when feasible and appropriate; Consider in-time changes to the class during the same semester; Report to students what changes were made based on student feedback.
Reviewing online material during class	Consider a brief review of complicated topics at beginning of a face-to-face session; Focus the majority of class time on active learning and application of material.
Technology	Choose technology that provides flexibility to students in completing online when feasible; Engage IIT when developing and implementing blended learning and online activities.

IIT = Instructional and Information Technology.

Margolis AR, Porter AL, Pitterle ME. Best Practices for Use of Blended Learning. Am J Pharm Educ 2017; 81(3): 49.

- für einen nachhaltigen Lernerfolg ist Wiederholung sowie das praktische Üben und anderen, etwas zu lehren, essenziell (siehe Fig. 2 und Fig. 3)

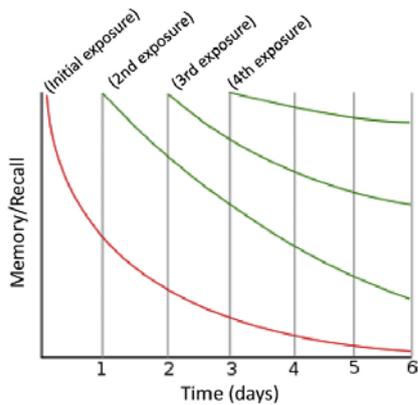


Fig. 2. Ebbinghaus forgetting curve: repetition is essential to long-term retention of knowledge.

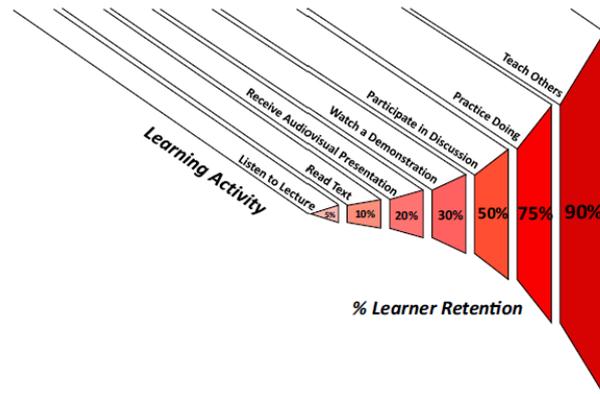


Fig. 3. The cone of learning.

Hermesen JL, Mokadam NA, Verrier ED. Flipping the Classroom. How to Optimize Learning in the Didactic Setting. Thorac Surg Clin 2019; 29(3): 279-284.

Vorbereitung von Videomaterialien

- Aufmerksamkeitsspanne sinkt deutlich ab **6 Minuten** Videolänge -> Überlegen, welche Aspekte notwendig sind, und diese auf kleine Videoeinheiten aufteilen
- persönliches Gefühl entscheidend, Produktion muss nicht hochprofessionell sein
- Darstellung sich entwickelnder Denkprozesse (Zeichnungen etc.)
- Sprache eher schneller als zu langsam

Finding	Recommendation
Shorter videos are much more engaging.	Invest heavily in pre-production lesson planning to segment videos into chunks shorter than 6 minutes.
Videos that intersperse an instructor's talking head with slides are more engaging than slides alone.	Invest in post-production editing to display the instructor's head at opportune times in the video.
Videos produced with a more personal feel could be more engaging than high-fidelity studio recordings.	Try filming in an informal setting; it might not be necessary to invest in big-budget studio productions.
Khan-style tablet drawing tutorials are more engaging than PowerPoint slides or code screencasts.	Introduce motion and continuous visual flow into tutorials, along with extemporaneous speaking.
Even high quality pre-recorded classroom lectures are not as engaging when chopped up for a MOOC.	If instructors insist on recording classroom lectures, they should still plan with the MOOC format in mind.
Videos where instructors speak fairly fast and with high enthusiasm are more engaging.	Coach instructors to bring out their enthusiasm and reassure that they do not need to purposely slow down.
Students engage differently with lecture and tutorial videos	For lectures, focus more on the first-watch experience; for tutorials, add support for rewatching and skimming.

Table 1. Summary of the main findings and video production recommendations that we present in this paper.

Guo PJ, Kim J, Rubin R. How video production affects student engagement: an empirical study of MOOC videos. ACM Press 2014: 41-50.

Nutzen bereits vorhandener Ressourcen

- viele Materialien sind bereits online verfügbar und müssen nicht selbst erstellt werden (siehe Empfehlungen)
- wesentlich ist die Einbindung in die Lernziele des Kurses, damit das Material nicht als Distraction wahrgenommen wird
- Zuschneiden von längeren Videos und Einbinden von Quizzes (im Rahmen einer sog. Accountability Structure), z. B. in Moodle, helfen dem Studierenden in der Bearbeitung des Materials

Moran KS. The web of plenty: Leveraging the abundance of free, on-demand online forensic content. Sci Justice 2022; 62(6): 778-784.