

Individual findings of the meta-analysis at a glance

According to Wagner et al. (2020): Effectiveness of the Flipped Classroom on Student Achievement in Secondary Education: A Meta-Analysis.

Moderator variable	Moderator levels	Effect size <i>d</i>	Number of studies (<i>k</i>)	Confidence Interval (95% CI)
Category 1: One-Group Pre-Post Comparison				
Disciplinary Field (sig.)	Math & ICT	1.05*	12	[0.68– 1.41]
	Science & engineering	2.00*	5	[1.44– 2.55]
	Languages & humanities	0.67*	7	[0.20– 1.14]
Length of Intervention (sig.)	4 weeks or less	1.73*	10	[1.37– 2.11]
	5 - 8 weeks	1.08*	4	[0.51– 1.66]
	Longer than 8 weeks	0.66*	8	[0.26– 1.07]
Quiz in Class (n.s.)	Yes	1.00*	5	[0.31– 1.70]
	No	1.17*	19	[0.82– 1.53]
Quiz at Home (sig.)	Yes	0.59*	6	[0.01– 1.17]
	No	1.32*	18	[0.99– 1.66]
Learning Management System (n.s.)	Yes	1.08*	17	[0.71– 1.46]
	No	1.28*	7	[0.69– 1.86]
Category 2: Two-Group Post Comparison				
Disciplinary Field (n.s.)	Math & ICT	0.45*	16	[0.12– 0.78]
	Science & engineering	0.53*	11	[0.13– 0.93]
	Languages & humanities	0.68*	12	[0.29– 1.06]
Length of Intervention (n.s.)	4 weeks or less	0.33	11	[–0.06– 0.72]
	5 – 8 weeks	0.87*	12	[0.50– 1.24]
	Longer than 8 weeks	0.45*	14	[0.11– 0.80]
Quiz in Class (n.s.)	Yes	0.48	5	[–0.13– 1.08]
	No	0.55*	34	[0.32– 0.78]
Quiz at Home (n.s.)	Yes	0.62*	12	[0.23– 1.01]
	No	0.52*	27	[0.25– 0.77]
Learning Management System (sig.)	Yes	0.36*	24	[0.11– 0.62]
	No	0.83*	15	[0.50– 1.15]
Category 3: Two-Group Comparison of Change				
Disciplinary Field (n.s.)	Math & ICT	0.34*	11	[0.10– 0.57]
	Science & engineering	0.84*	4	[0.45– 1.23]
	Languages & humanities	0.25	5	[–0.11– 0.60]
Length of Intervention (n.s.)	4 weeks or less	0.59*	7	[0.27– 0.91]
	5 – 8 weeks	0.46*	4	[0.03– 0.88]
	Longer than 8 weeks	0.32*	7	[0.01– 0.64]
Quiz in Class (n.s.)	Yes	0.23	5	[–0.16– 0.62]
	No	0.48*	15	[0.26– 0.70]
Quiz at Home (n.s.)	Yes	0.31	5	[–0.08– 0.71]
	No	0.45*	15	[0.23– 0.68]
Learning Management System (sig.)	Yes	0.28*	15	[0.08– 0.47]
	No	0.84*	5	[0.51– 1.17]

Notes:
 sig = Overall, the moderator variable has a significant influence on the effect sizes found in the studies.How large or small the effect sizes are in the primary studies can therefore also be explained with the help of this moderator variable.
 (n.s.) = Overall, the moderator variable has no significant influence on the effect sizes found in the studies, even if the values of the moderator levels vary significantly in some cases. Based on the available data, this moderator variable cannot be used to explain whether primary studies show larger or smaller effect sizes.