HOW LONG DO READING GAINS HOLD? META-ANALYTIC EVIDENCE OF FADEOUT TRAJECTORIES

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Purpose:
Reading interventions improve short-term reading outcomes (i.e., post-test effects). However, positive impacts of these interventions fade out over time (i.e., follow-up effects). The purpose was to examine the extent to which reading intervention gains persist or fade out over time.
Method:
We systematically collected experimental studies of reading interventions reporting the same reading outcome at post-test and follow-up. We grouped follow-up assessments into four bins (1 week–4 months, 5–8 months, 9–12 months, 12–24 months). Hedges' g was the effect size. To examine fadeout trajectories, we computed average weighted effects at each follow-up bin. We then estimated metaregression models linking post-test effects to follow-up effects, where the slope captured the proportion of post-test gains that carried into follow-up, whilst the intercept represented additional follow-up effects not explained by post-test effects.
Results:
Thirty-five studies were included (117 effect sizes). The average post-test effect was 0.34, declining to 0.29 at 1 week–4 months and 0.28 at 5–8 months. At 1 week–4 months, the slope was nonsignificant. At 5–8 months, the slope was significant, indicating that 52% of post-test gains persisted. Small nonsignificant intercepts at 1week–4 months and 5–8 months indicated limited evidence of benefits beyond those tied to post-test gains. Results for estimates greater than 8 months are not reported here.
Conclusions:
Reading intervention effects declined over time, with roughly half of the initial gains persisting by 5-8 months. Findings highlight that sustainedbenefits depend strongly on the magnitude of post-test effects.