

Introduction

- We sought to understand the circumstances when autonomy improves students' learning, specifically reading comprehension, in high school, middle school, and elementary school settings.
- Having intrinsic motivation is essential for a student's learning and academic success, especially at a young age.
- Autonomy is an important piece of creating intrinsic motivation in students, but it is unclear **when** and **how** we should give students these choices.

Methods

- We reviewed 37 articles and examined the connections between autonomy and reading achievement based on the choice of instruction for each article.
- 20 articles focused on elementary schools, 8 on middle school, and 9 on high school
- For each article, we created an architecture map that highlights the connections between autonomy, reading achievement, and any other factors that influenced results (see *Figure 3*).

Discussion

- The effect of autonomy on reading is complicated, as multiple other student factors such as age and socioeconomic status interact with reading outcomes
- Oftentimes autonomy is difficult to define and isolate, particularly when provided within a larger intervention
- Generally, autonomy was found to have a positive effect on reading outcome
- Evidence points towards a positive relationship between autonomy and age
- Autonomy interventions were shown to be effective for students with low socioeconomic status

Autonomy Defined and the Related Outcomes:

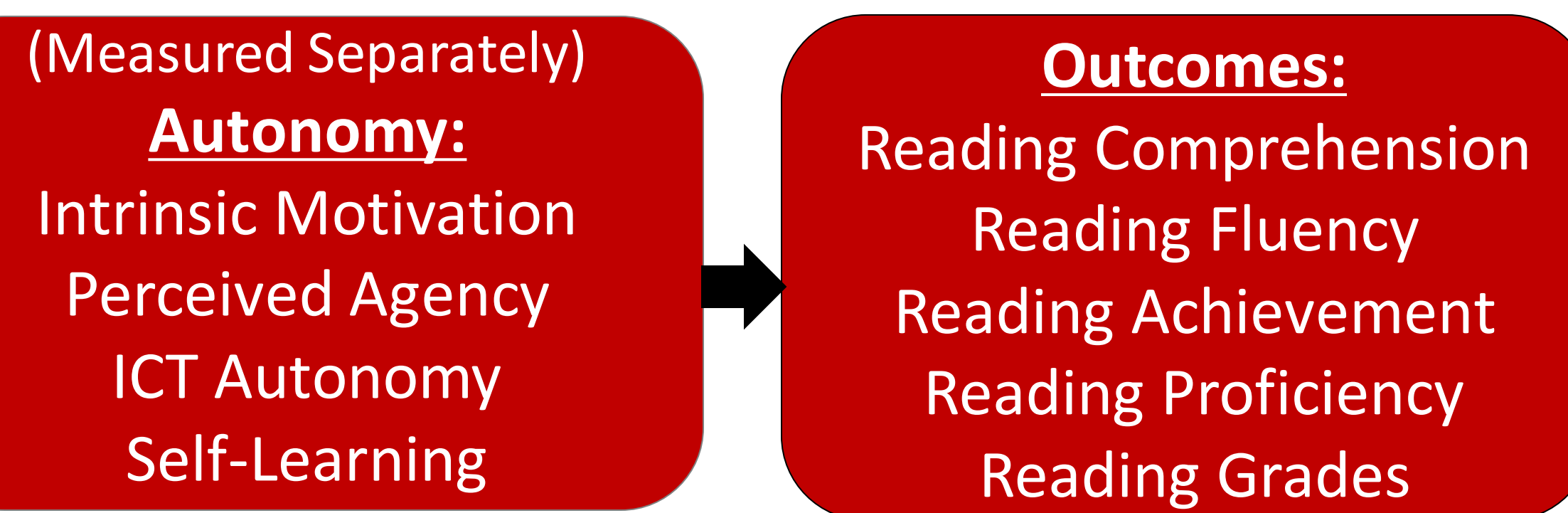


Figure 1. Relationship between autonomy variables and reading outcomes

Effect of Autonomy on Age:

	Elementary	Middle	High
Positive Link	60.71%	58.33%	72.73%
No Link	32.14%	41.67%	18.18%
Negative link	7.14%	0	9.09%

Table 1. Effectiveness of autonomy intervention by grade level across respective articles

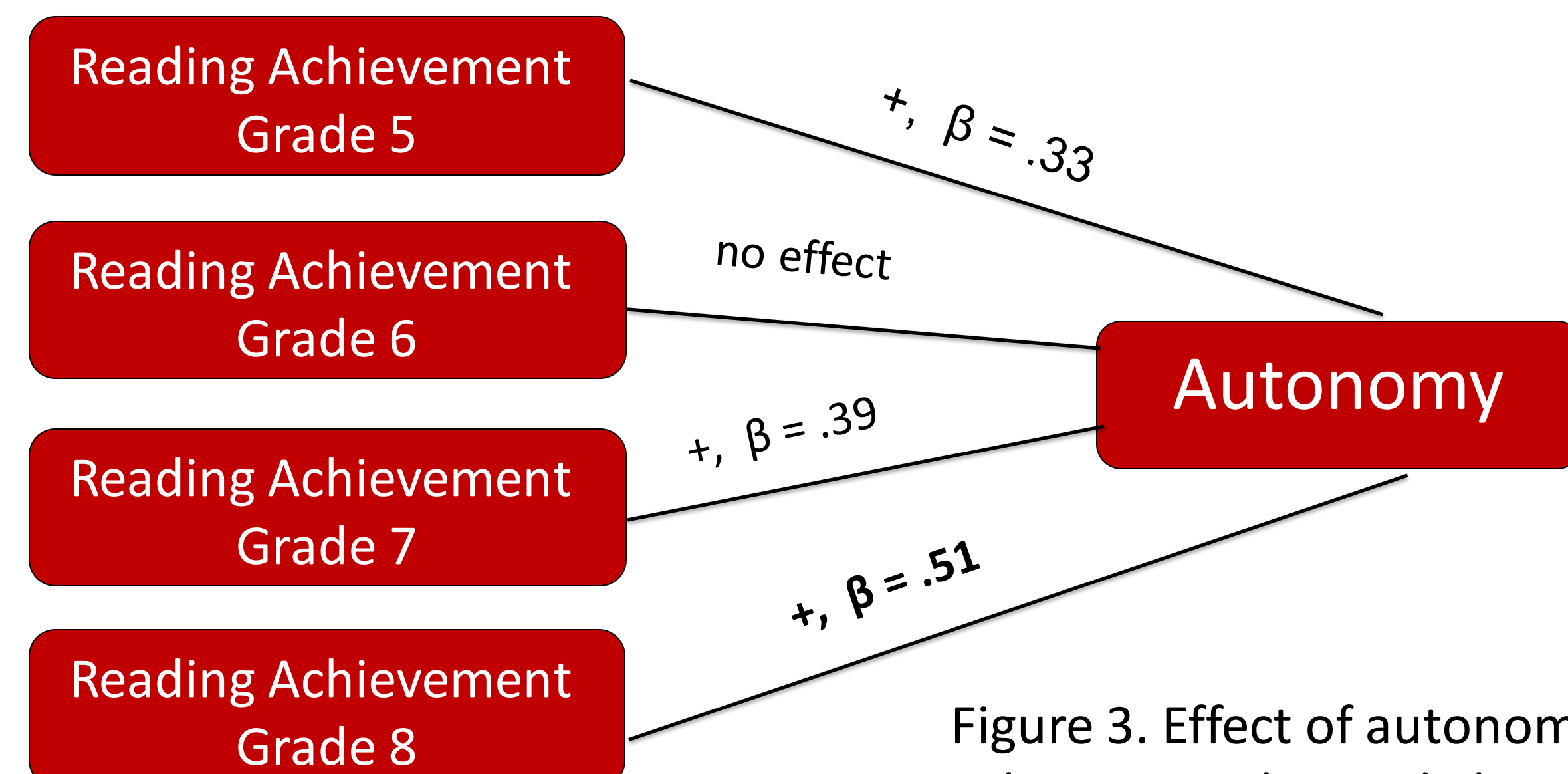


Figure 3. Effect of autonomy on reading achievement by grade level.

Results

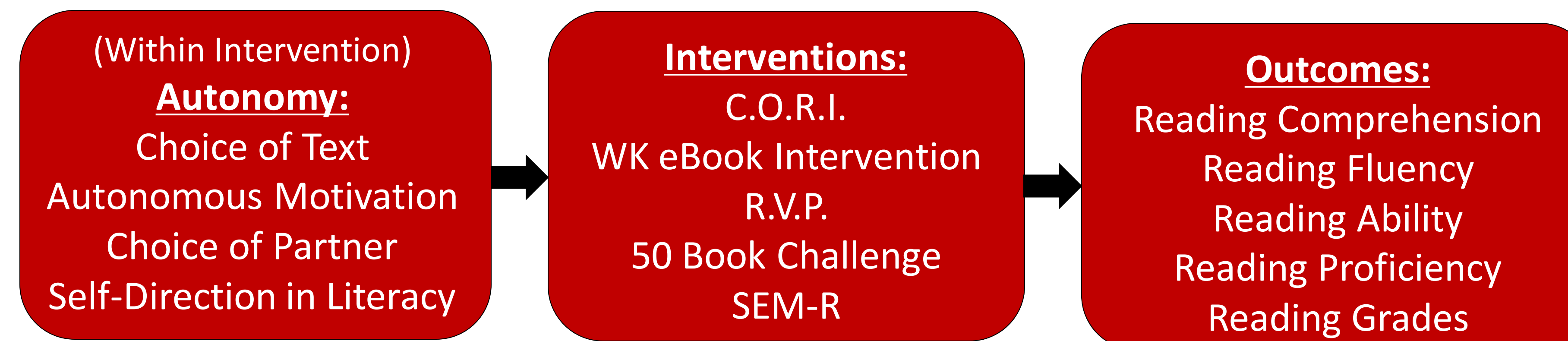


Figure 2. Relationship between autonomy variables and reading outcomes through various interventions

Effect of Autonomy on Low Socioeconomic Status:

	Interventions for Disadvantaged Students
Positive Effect	8
Positive & No Effect	3
No Effect	2

Table 2. Effectiveness of autonomy intervention for students with low socioeconomic status

References

- Davis, M. H., Wang, W., Kingston, N. M., Hock, M., Tonks, S. M., & Tiemann, G. (2020). A computer adaptive measure of reading motivation. *Journal of Research in Reading*, 43(4), 434-453.
- Reis, S. M., McCoach, D. B., Little, C. A., Muller, L. M., & Kaniskan, R. B. (2011). The effects of differentiated instruction and enrichment pedagogy on reading achievement in five elementary schools. *American Educational Research Journal*, 48(2), 462-501.

Acknowledgments

We thank Heidi Kloos and Abby McCarthy for their contributions to our research.

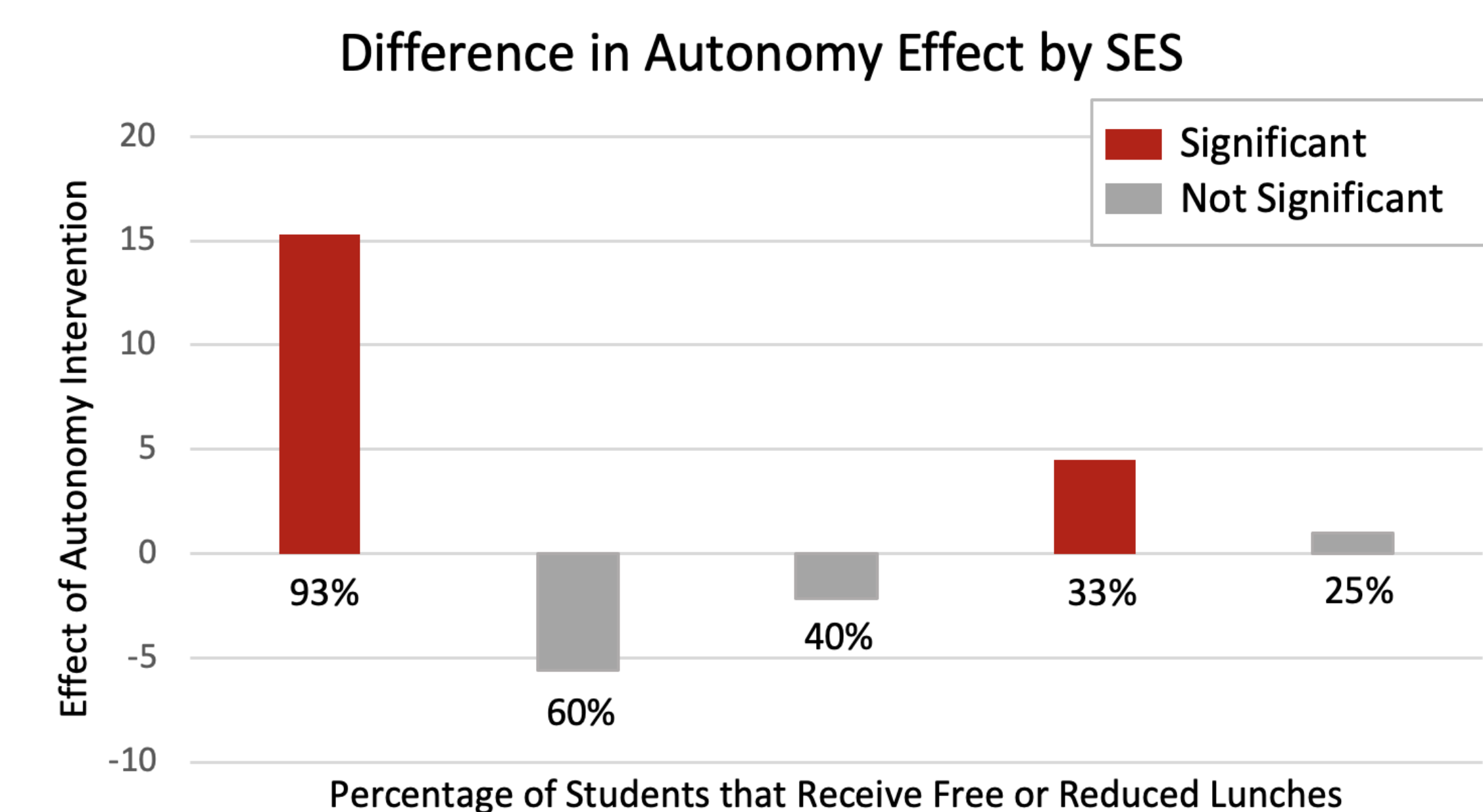


Figure 4. Difference in autonomy effect by SES across five schools

-Autonomy intervention most effective at school with highest rates of students that receive free or reduced lunches