

## Collaborative Learning

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Zhang, X., Anderson, R. C., Morris, J., Miller, B., Nguyen-Janiel, K. T., Lin, T., Zhang, J., Jadallah, M., Scott, T., Sun, J., Latawjec, B., Ma, S., Grabow, K., & Hsu, J. Y. (2016). Improving children's competence as decision makers: Contrasting effects of collaborative interaction and direct instruction. *American Educational Research Journal*, 53, 194-223. doi: 10.3102/0002831215618663



### SWIFT Feature in the Research

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A **Fully Integrated Educational System** practices **collaborative learning** among all peers. The Zhang et al. (2016) study compared how **collaborative learning** and direct instruction formats affected students' decision-making skills, and which of these instructional formats best supported students' ability to transfer knowledge to another topic area.

## Research Summary

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### What

**Collaborative learning** takes place when students directly engage one another in discussion, creation, and decision making. Interactions are coordinated by an adult but are designed to be peer-led and driven. A teacher steps in only to redirect discussion or to remind students of their roles.

Direct instruction is teacher-led and individual student work is the focus. A teacher controls what, when, and how the information is shared.

### Who

The Zhang et al. (2016) study measured outcomes from 764 5th graders in 36 classrooms from 8 schools in 2 Midwestern urban districts. A majority of students were from low income families; and 44% of students were African American and 47% had Hispanic ethnicity.

### How

Researchers divided the 36 classrooms into three groups that were similar to one another in terms of demographic composition and academic record.

One group of teachers received training on **collaborative learning**, the second group on direct instruction, and the third group was "wait-listed" for later training, thus serving as a control group for the study.

Both trained groups taught a curriculum unit designed to provide students a platform to consider a complicated issue and to investigate complex inter-relationships, trade-offs, and the varying aspects of problems. Students were taught to how to make responsible and reasoned decisions that took different perspectives

into consideration. Both groups used the same curriculum unit tools; had research assistants onsite to ensure fidelity of the curriculum implementation and instruction format and to collect various forms of data; and assessed students at the beginning of the study to determine their baseline comprehension levels and basic oral English proficiency.

After instruction, students wrote essays to demonstrate what they learned. Researchers assessed the student essays on three aspects of decision making: recognizing two sides of a dilemma, comprehensiveness of reason, and weighing reasons according to importance. They also assessed students' abilities to relate what they learned about decision making to a similar topic area (i.e., example of near transfer) and to a completely different topic area (i.e., example of far transfer).

### Major Findings

Students who engaged in the **collaborative learning** wrote significantly better essays as measured by the three aspects of decision making than did their peers in the direct instruction group. They also scored significantly higher when applying their decision-making skills to a different topic area (far transfer).

Students who received direct instruction grasped many more concepts, information, and improved their decision-making skills related to the unit. They also demonstrated a stronger ability to apply decision-making skills to a similar topic area (near transfer) than the other two groups. However, they performed no better than those in the control group on their essays and they did not demonstrate far transfer.

## Conclusion

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The researchers demonstrated that students whose academic scores were significantly lower than their national peers were able to gain new decision-making skills through **collaborative learning**. These new skills additionally supported students' abilities to generalize information to new topics and become more thoughtful decision makers.

## Suggested Citation

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