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Exploring Long-Term Impacts of Self-Regulated Learning Interventions in K-12 Contexts: A Systematic Review

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Introduction and Framework

- Research illustrates the benefits of interventions designed to improve self-regulated learning (SRL) and academic achievement, but do these benefits last?
- This review synthesizes research on 17 comprehensive SRL interventions to examine the durability of intervention effects.



[Click here to view a table of the reviewed studies](#)

Inclusion & Exclusion Criteria

- The context of the study is academic.
- The study involves an intervention based on self-regulated learning principles aimed at improving students' SRL and/or academic achievement by way of SRL.
- The SRL intervention is holistic, meaning that it targets subcomponents from each SRL phase of forethought, performance, and reflection.
- The study includes a delayed posttest follow-up measure which takes place at least eight weeks after the intervention period.
- The study sample consists of K-12 students.
- The study is published in a peer-reviewed journal available in English.

Search Strategy

270 search results from 8 databases

35 studies remaining after screening against initial selection criteria

11 additional studies identified through reference tracking

46 studies screened against final inclusion criteria

18 selected studies, 17 unique interventions



The systematic review summarized in this poster has been accepted for publication in an upcoming issue of *Current Issues in Education (CIE)*.

RQ1: What trends are present in SRL intervention studies that include follow-up measures?

Designs and conditions

Studies generally included large sample sizes, and researchers executed rigorous, quasi-experimental designs. Most studies included a “business as usual” (BAU) control group receiving unaltered classroom instruction and 1 or more treatment groups, often comparing holistic SRL interventions to those that targeted less components or were content strategy focused.



[Click here to view a table detailing each study's conditions](#)

Participants

These studies included a wide range of participants from elementary to high school grade levels, including both typical student populations and populations with more specific characteristics typically related to academic risk.



[Click here to view a table of participant characteristics](#)

Interventions

The holistic SRL interventions tended to be complex, multi-faceted, and lengthy interventions typically implemented in classroom settings and within core academic domains.

- Intervention Components:** SRL interventions tended to involve a combination of teaching approaches, often included resources and interactive tools, and typically followed a set schedule. The use of group work in interventions to support shared or co-regulation of learning was less consistent than some other characteristics across studies.
- Implementation:** Interventions were most often implemented by existing teachers within their classrooms that were trained by researchers, but in multiple other studies, researchers or research assistants implemented the intervention. Means of monitoring fidelity of implementation included checklists, periodic observations, facilitator notes and reports of sessions, and analysis of student materials for task completion.



[Click here to view a table showing intervention details](#)

Measures

Most studies included measures of both SRL and academic achievement.

- SRL measures:** SRL was often measured exclusively via student self-report measures, though multiple studies included other measurement forms for SRL often in combination with one or more self-report scales. Most studies that included measures beyond self-report scales also triangulated SRL data across multiple measures. Not all studies assessed all major phases and multiple subprocesses of SRL.
- Achievement measures:** Achievement measures typically consisted of one or two content-tests and included both multiple-choice and open-ended measures.



[Click here to view a table of SRL and achievement measures](#)

RQ2: Do SRL interventions have lasting effects on students' achievement and self-regulated learning?

- Results indicate that SRL interventions can have lasting impact on students' self-regulation, though results were mixed in several studies that included multiple measures of SRL.
- Holistic SRL interventions do often have lasting effects on student achievement, at least within the content area in which they were implemented, and effects occurred across multiple domains including reading, writing, math, and foreign language, and were present for typical students, at-risk populations, and across grade levels.
- Combining SRL strategies with domain-specific strategy instruction appears to lead to better long-term achievement outcomes than domain-specific strategies alone.
- In some instances, the effect of holistic SRL interventions on academic achievement is not realized *until* a delay.



[Click here to view a table detailing the results of each study](#)

Discussion

- There were many differences in how SRL was operationalized and assessed due to the variety of subprocesses subsumed by SRL, which made it difficult to draw conclusions regarding the specific contributing factors that led to these results beyond the general trends amongst the interventions.
- The pattern of effects on achievement across domains and populations illustrates the flexibility of these interventions to improve student success in a variety of contexts and without exacerbating existing achievement gaps.

Limitations

- Limitations of the studies reviewed include potential selection bias, lack of true control conditions, varied attempts to monitor fidelity of implementation, and an overreliance on self-report measures of SRL.
- Limitations of the present review include a limited scope of relatively few studies and difficulties in comparison of SRL interventions and measures across studies due to the complexity of the phenomenon.



[Click here for a complete list of references](#)