



WWC Intervention Report

A summary of findings from a systematic review of the evidence



Dropout Prevention

May 2015

Credit Recovery Programs

This intervention report presents findings from a systematic review of *credit recovery programs* conducted using the WWC Procedures and Standards Handbook, version 3.0, and the Dropout Prevention review protocol, version 3.0. No studies of *credit recovery programs* that fall within the scope of the Dropout Prevention review protocol meet What Works Clearinghouse (WWC) group design standards. Because no studies meet WWC group design standards at this time, the WWC is unable to draw any conclusions based on research about the effectiveness or ineffectiveness of *credit recovery programs* on students who attend middle school, junior high school, or high school, are “at risk” of dropout, or who have dropped out of school. Research that meets WWC design standards is needed to determine the effectiveness or ineffectiveness of this intervention.

Program Description¹

Credit recovery programs allow high school students to recover course credit for classes they previously failed. Through in-school, online, or mixed modes, students can earn course credits to complete their diplomas or to avoid falling further behind in school. *Credit recovery programs* include both commercially developed programs and standalone programs developed by schools and school districts. Online courses, which can be developed by school districts, virtual schools, non-profit organizations, or for-profit organizations, provide students with flexible settings for learning. In-school programs take place in traditional settings during non-school hours. Mixed methods integrate online and in-person components, offering opportunities to interact directly with instructors.

Research²

The WWC identified nine studies of *credit recovery programs* for students who attended middle school, junior high school, or high school, and were “at risk” of dropout or who have dropped out of school that were published or released between 1988 and 2014.

Four studies are within the scope of the Dropout Prevention review protocol but do not meet WWC group design standards.

- Three studies used a quasi-experimental design and did not establish that the intervention group was comparable to the comparison group prior to the start of the intervention.
- One study used a quasi-experimental design in which an adjacent cohort (with different school leadership) is used as the comparison group, which makes it inappropriate to attribute the effect solely to the *credit recovery program*.

Five studies are out of the scope of the Dropout Prevention review protocol because they have an ineligible study design.

References

Studies that do not meet WWC group design standards

- Ellis, A. L. (2002). *The ninth grade success initiative grant: A study of the impact of a credit recovery program in the Weatherford Independent School District* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 2053925) The study does not meet WWC group design standards because the equivalence of the analytic intervention and comparison groups is necessary and not demonstrated.
- Fahey, J. M. (2010). *Relationship between credit recovery programs and graduation rates for at-risk students on the Navajo Indian Reservation* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3396551) The study does not meet WWC group design standards because the measures of effectiveness cannot be attributed solely to the intervention.
- Trautman, T., & Lawrence, J. (2004). *Credit recovery: A technology-based intervention for dropout prevention at Wichita Falls High School*. Herndon, VA: The American Education Corporation. The study does not meet WWC group design standards because the equivalence of the analytic intervention and comparison groups is necessary and not demonstrated.
- Trujillo, G. (2013). *Participation in summer school and high school graduation in the Sun Valley High School District* (Doctoral dissertation). Available from Proquest Dissertations & Theses database. (UMI No. 3547701) The study does not meet WWC group design standards because the equivalence of the analytic intervention and comparison groups is necessary and not demonstrated.

Studies that do not meet WWC pilot single-case design standards

None.

Studies that are ineligible for review using the Dropout Prevention Evidence Review Protocol

- Franco M. S., & Patel N. H. (2011). An interim report on a pilot credit recovery program in a large, suburban mid-western high school. *Education*, 132(1), 15–27. The study is ineligible for review because it does not use an eligible design.
- Getwood, M. (2012). *Effects of a credit-recovery program on at-risk ninth-grade students in a southeast Texas school district* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3510149) The study is ineligible for review because it does not use an eligible design.
- Huckabee, S. B. (2011). *Environmental and psychological factors contributing to student achievement in a high school online mediated credit recovery program* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3419791) The study is ineligible for review because it does not use an eligible design.
- Robbins, W. S. (2011). *Alternative school education: Using web-based curriculum programs to assist at-risk students with high school credit recovery in select East Central Indiana schools* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3490140) The study is ineligible for review because it does not use an eligible design.
- Yoh, K. J. (2012). *Exploring online learning opportunities for at-risk students to complete a high school diploma* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3462936) The study is ineligible for review because it does not use an eligible design.

Endnotes

¹ The descriptive information for this program was obtained from publicly available sources: Zinth, J. D. (2011). Credit recovery and proficiency-based credit: Maintaining high expectations while providing flexibility. *The Progress of Education Reform*, 12(3), 1–6. Retrieved from <http://eric.ed.gov/?id=ED521327>, September 2014; and McCabe, J., & St. Andrie, R. (2012). *Credit recovery programs: full report*. Alexandria, VA: Center for Public Education. Retrieved from <http://www.centerforpubliceducation.org/Main-Menu/Staffingstudents/Credit-recovery-programs/Credit-recovery-programs-full-report.html>, January 2015. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review.

² The literature search reflects documents publicly available by April 2014. The studies in this report were reviewed using the Standards from the WWC Procedures and Standards Handbook (version 3.0), along with those described in the Dropout Prevention review protocol (version 3.0). The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

Recommended Citation

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Glossary of Terms

Attrition	Attrition occurs when an outcome variable is not available for all participants initially assigned to the intervention and comparison groups. The WWC considers the total attrition rate and the difference in attrition rates across groups within a study.
Clustering adjustment	If intervention assignment is made at a cluster level and the analysis is conducted at the student level, the WWC will adjust the statistical significance to account for this mismatch, if necessary.
Confounding factor	A confounding factor is a component of a study that is completely aligned with one of the study conditions, making it impossible to separate how much of the observed effect was due to the intervention and how much was due to the factor.
Design	The design of a study is the method by which intervention and comparison groups were assigned.
Domain	A domain is a group of closely related outcomes.
Effect size	The effect size is a measure of the magnitude of an effect. The WWC uses a standardized measure to facilitate comparisons across studies and outcomes.
Eligibility	A study is eligible for review and inclusion in this report if it falls within the scope of the review protocol and uses either an experimental or matched comparison group design.
Equivalence	A demonstration that the analytic sample groups are similar on observed characteristics defined in the review area protocol.
Extent of evidence	An indication of how much evidence supports the findings. The criteria for the extent of evidence levels are given in the WWC Procedures and Standards Handbook (version 3.0).
Improvement index	Along a percentile distribution of individuals, the improvement index represents the gain or loss of the average individual due to the intervention. As the average individual starts at the 50th percentile, the measure ranges from -50 to +50.
Intervention	An educational program, product, practice, or policy aimed at improving student outcomes.
Intervention report	A summary of the findings of the highest-quality research on a given program, product, practice, or policy in education. The WWC searches for all research studies on an intervention, reviews each against design standards, and summarizes the findings of those that meet WWC design standards.
Multiple comparison adjustment	When a study includes multiple outcomes or comparison groups, the WWC will adjust the statistical significance to account for the multiple comparisons, if necessary.
Quasi-experimental design (QED)	A quasi-experimental design (QED) is a research design in which study participants are assigned to intervention and comparison groups through a process that is not random.
Randomized controlled trial (RCT)	A randomized controlled trial (RCT) is an experiment in which eligible study participants are randomly assigned to intervention and comparison groups.
Rating of effectiveness	The WWC rates the effects of an intervention in each domain based on the quality of the research design and the magnitude, statistical significance, and consistency in findings. The criteria for the ratings of effectiveness are given in the WWC Procedures and Standards Handbook (version 3.0).
Single-case design	A research approach in which an outcome variable is measured repeatedly within and across different conditions that are defined by the presence or absence of an intervention.

Glossary of Terms

- Standard deviation** The standard deviation of a measure shows how much variation exists across observations in the sample. A low standard deviation indicates that the observations in the sample tend to be very close to the mean; a high standard deviation indicates that the observations in the sample tend to be spread out over a large range of values.
- Statistical significance** Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. The WWC labels a finding statistically significant if the likelihood that the difference is due to chance is less than 5% ($p < .05$).
- Substantively important** A substantively important finding is one that has an effect size of 0.25 or greater, regardless of statistical significance.
- Systematic review** A review of existing literature on a topic that is identified and reviewed using explicit methods. A WWC systematic review has five steps: 1) developing a review protocol; 2) searching the literature; 3) reviewing studies, including screening studies for eligibility, reviewing the methodological quality of each study, and reporting on high quality studies and their findings; 4) combining findings within and across studies; and, 5) summarizing the review.

Please see the WWC Procedures and Standards Handbook (version 3.0) for additional details.



An **intervention report** summarizes the findings of high-quality research on a given program, practice, or policy in education. The WWC searches for all research studies on an intervention, reviews each against evidence standards, and summarizes the findings of those that meet standards.