What Works Clearinghouse

ies INSTITUTE OF EDUCATION SCIENCES

Accelerated Middle Schools

Program description

Accelerated middle schools are self-contained academic programs designed to help middle school students who are behind grade level catch up with their age peers. If these students begin high school with other students their age, the hope is that they will be more likely to stay in school and graduate. The programs serve students who are one to two years behind grade level and give them the opportunity to cover an additional year of curriculum during their one to two years in the program. Accelerated middle schools can be structured as separate schools or as schools within a traditional middle school.

Research

One study of accelerated middle schools met the What Works Clearinghouse (WWC) evidence standards, and two studies met them with reservations. The three randomized controlled trials included more than 800 students in school districts in Georgia, Michigan, and New Jersey. Based on the three, the WWC considers the extent of evidence for accelerated middle schools to be medium to large for the staying in school and progressing in school domains. The studies did not examine relevant outcomes in the completing school domain.[1]

Effectiveness

Accelerated middle schools were found to have potentially positive effects on staying in school and positive effects on progressing in school.

	Staying in school	*Progressing in school*	*Completing school*
Rating of effectiveness	Potentially positive effects	Positive effects	na
Improvement index[2]	*Average*: +18 percentile points *Range*: –5 to +33 percentile points	*Average*: +35 percentile points *Range*: +15 to +44 percentile points	na

na = not applicable

1. The evidence in this report is based on available research. Findings and conclusions may change as new research becomes available.
2. These numbers show the average and range of improvement indices for all findings across the studies.

Absence of conflict of interest

The accelerated middle schools studies summarized in this intervention report were conducted by staff of Mathematica Policy Research, Inc. (MPR). Because the principal investigator for the WWC dropout prevention review is an MPR staff member and was also an author of these studies, they were rated by staff members from ICF International, who also prepared the intervention report. The report was then reviewed by MPR staff members and an external peer reviewer.

Additional program information

Developer and contact

No general contact or developer information is available for accelerated middle schools. Additional information about the program model and the implementation experience of districts that have used it can be found in the Hershey, Adelman, and Murray (1995) report listed in the "References" section of this report.

Scope of use

While many districts operate accelerated middle school programs for students who are behind grade level, the full scope of use of this model is not known. The three accelerated middle schools described in this report—the Griffin-Spalding Middle School Academy in Griffin, Georgia; the Accelerated Academics Academy in Flint, Michigan; and Project Accelerated Curriculum Classes Emphasizing Learning in Newark, New Jersey—were created in the early 1990s as part of the School Dropout Demonstration Assistance Program, under which the U.S. Department of Education awarded grants to school districts and community organizations to implement dropout prevention programs. Of the three accelerated middle schools described in the report, only the Accelerated Academics Academy in Michigan was still operating in 2008.

Description of intervention

Accelerated middle schools aim to help middle school students who are behind grade level "catch up" to their age peers by covering core academic curriculum at an accelerated pace. Students are typically one to two years behind grade level when they enter the program and cover an additional year of material during their one to two years in the program. To make room in the school day for additional instructional time in core academic subjects, these schools often offer relatively few electives. Accelerated middle schools can be structured either as separate schools or as schools within a traditional middle school. Varying somewhat in their approach to instruction, the programs share several common elements. Classes are often linked thematically across multiple subjects. Instruction is more experiential and "hands on" than is typical in a traditional middle school. The programs generally offer smaller classes than traditional middle schools and provide additional academic and social supports, such as tutoring, attendance monitoring, counseling, and family outreach.

Cost

Researchers estimate the annual per student cost of accelerated middle schools to be more than $13,000 in New Jersey, about $11,000 in Michigan, and about $7,000 in Georgia.[3] The annual per student cost exceeded costs in traditional middle schools by about $5,000 in New Jersey and by about $2,000 in Michigan. In Georgia the annual per student cost was lower than in a traditional middle school by about $2,000.

3. See Rosenberg and Hershey (1995). Costs have been converted to 2007 dollars using the consumer price index. Costs have been converted from monthly to annual costs by assuming a 10-month school year.

Research

The WWC reviewed three studies of the effectiveness of accelerated middle schools. These three studies were included within one research report (Dynarski, Gleason, Rangarajan, & Wood, 1998). The Dynarski et al. (1998) studies of accelerated middle schools were part of a larger evaluation examining the effectiveness of 16 dropout prevention programs. One of the Dynarski et al. (1998) studies—the one conducted in Newark, New Jersey—met WWC evidence standards. The other two studies—conducted in Griffin, Georgia, and Flint, Michigan—met WWC evidence standards with reservations. The Georgia and Michigan studies received a lower rating because of differential attrition for the intervention and control groups.[4]

The Dynarski et al. (1998) studies in Georgia, Michigan, and New Jersey were all randomized controlled trials in which students were randomly assigned either to the intervention group that was offered admission to the accelerated middle school or to a control group that was not. Students assigned to the control group generally attended traditional middle schools in the district. The Georgia study included 140 applicants for the 1993/94 school year, the Michigan study 172 applicants for the 1992/93 and 1993/94 school years, and the New Jersey study 535 applicants for the same two school years.

Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or medium to large (see the What Works Clearinghouse Extent of Evidence Categorization Scheme). The extent of evidence takes into account the number of studies and total sample size across the studies that met WWC evidence standards with or without reservations.[5]

The WWC considers the extent of evidence for accelerated middle schools to be medium to large for staying in school and progressing in school. No studies that met WWC evidence standards examined relevant measures for completing school.

Effectiveness

Findings

The WWC review of interventions for dropout prevention addresses student outcomes in three domains: staying in school, progressing in school, and completing school. The Georgia, Michigan, and New Jersey studies by Dynarski et al. (1998) assessed outcomes in the staying in school and progressing in school domains.

Staying in school. In the Michigan study 2% of accelerated middle school students had dropped out of school two years after entering the program, compared with 9% of control-group students, a statistically significant difference. The Georgia study also found a lower dropout rate among accelerated middle school students—6% compared with 14% in the control group—a difference that was not statistically significant but that is considered substantively important by WWC standards (an effect size greater than 0.25). The New Jersey study found accelerated middle schools had no statistically significant or substantively important effect on dropping out.

Progressing in school. The Georgia, Michigan, and New Jersey studies all found that accelerated middle schools had statistically significant and substantively important effects on progressing in school. In the Georgia study the average number of school years completed at the two-year follow-up was 8.6 for accelerated middle school students and 7.9 for control-group students. In the Michigan study the average number of school years completed at the two-year follow-up was 7.3 for

4. In the Michigan study survey response rates were 89.3% for the intervention group and 83.7% for the control group, exceeding the 5% differential attrition threshold used for WWC dropout prevention reviews. In the Georgia study response rates were 84% for the intervention group and 91% for the control group, also exceeding the 5% threshold.
5. The Extent of Evidence Categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept, external validity—such as students' demographics and types of settings in which studies took place—are not taken into account for the categorization.

Effectiveness *(continued)*

accelerated middle school students and 6.8 for control-group students. The New Jersey study also found higher average years of school completed for accelerated middle school students—7.8 compared with 7.5 for the control group.

Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the WWC Intervention Rating Scheme).[6]

The WWC found accelerated middle schools to have potentially positive effects on staying in school and positive effects on progressing in school

Improvement index

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study as well as an average improvement index across studies (see Technical Details of WWC-Conducted Computations). The improvement index represents the difference between the percentile rank of the average student in the intervention condition and that of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is based entirely on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analyses. The improvement index can take on values between –50 and +50, with positive numbers denoting results favorable to the intervention group.

Based on the three studies of accelerated middle schools that met evidence standards, the average improvement index for staying in school is +18 percentile points, with a range of –5 to +33 percentile points across the studies. Based on these three studies, the average improvement index for progressing in school is +35 percentile points, with a range of +15 to +44 percentile points across the studies.

Summary

The WWC reviewed three studies on accelerated middle schools. One study met WWC evidence standards, and two studies met WWC evidence standards with reservations. Based on these three studies, the WWC found potentially positive effects on staying in school and positive effects on progressing in school. The conclusions in this report may change as new research emerges.

References

Met WWC evidence standards

Dynarski, M., Gleason, P., Rangarajan, A., & Wood, R. (1998). *Impacts of dropout prevention programs: Final report. A research report from the School Dropout Demonstration Assistance Program evaluation*. Princeton, NJ: Mathematica Policy Research, Inc. **(New Jersey study)**

Met WWC evidence standards with reservations

Dynarski, M., Gleason, P., Rangarajan, A., & Wood, R. (1998). *Impacts of dropout prevention programs: Final report. A research report from the School Dropout Demonstration Assistance Program evaluation*. Princeton, NJ: Mathematica Policy Research, Inc. **(Georgia study)**

6. The level of statistical significance was reported by the study authors, or where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the WWC Tutorial on Mismatch. For the formulas the WWC used to calculate the statistical significance, see Technical Details of WWC-Conducted Computations. For the studies summarized here, no corrections for clustering or multiple comparisons were needed.

References *(continued)*

Dynarski, M., Gleason, P., Rangarajan, A., & Wood, R. (1998). *Impacts of dropout prevention programs: Final report. A research report from the School Dropout Demonstration Assistance Program evaluation*. Princeton, NJ: Mathematica Policy Research, Inc. **(Michigan study)**

Additional sources

Dynarski, M., & Gleason, P. (1998). *How can we help? What we have learned from evaluations of federal dropout-prevention programs*. Princeton, NJ: Mathematica Policy Research, Inc.

Hershey, A., Adelman, N., & Murray, S. (1995). *Helping kids succeed: Implementation of the School Dropout Demonstration Assistance Program*. Princeton, NJ: Mathematica Policy Research, Inc.

Rosenberg, L., & Hershey, A. (1995). *The cost of dropout prevention programs*. Princeton, NJ: Mathematica Policy Research, Inc.

For more information about specific studies and WWC calculations, please see the WWC Accelerated Middle Schools Technical Appendices.