Research That Supports the Need for and Benefits of Gifted Education
The National Association for Gifted Children

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Separate studies conducted during the last few decades have demonstrated both the need for and the benefits of gifted education programs. Gifted program effectiveness has been documented in schools with widely differing socioeconomic levels and program organization patterns and the effectiveness of these programs has been documented longitudinally with both case study as well as larger data base studies. Of special interest are the documented benefits that occur for all children when gifted education strategies and programs are extended to other students, as well.

This research on gifted education and gifted education pedagogy supports the following:

1. **The needs of gifted students are generally not met in American classrooms where the focus is most often on struggling learners and where most classroom teachers have not had the training necessary to meet the needs of gifted and students** (Archambault, et al, 1993; Moon, Tomlinson, & Callahan, 1995; Reis, et al, 2004; Reis & Purcell, 1993; Westberg, et al, 1993).

2. **Grouping gifted students together for instruction increases achievement for gifted students, and in some cases, also for students who are achieving at average and below average levels** (Gentry & Owen, 1999; Kulik, 1992; Rogers, 1991; Tieso, 2002).

3. **The use of acceleration results in higher achievement for gifted and talented learners** (Kulik, 1992; Colangelo, Assouline & Gross, 2004; Rogers, 1991).

4. **The use of enrichment and curriculum enhancement results in higher achievement for gifted and talented learners as well as other students** (Field, nd; Gavin, et al, 2007; Gentry & Owen, 1999; Kulik, 1992; Reis, et al, 2007; Gubbins, et al, 2007; Rogers, 1991; Tieso, 2002),

5. **Classroom teachers can learn to differentiate curriculum and instruction in their regular classroom situations and to extend gifted education strategies and pedagogy to all content areas (**Baum, 1988; Colangelo, Assouline & Gross, 2004; Field, nd; Gavin, et al, 2007; Gentry & Owen, 1999; Little, Feng, VanTassel-Baska, Rogers, Avery, 2007; Reis, Gentry, & Maxfield, 1998; Reis, et al, 2007; Tieso, 2002; Reis, Westberg, Kulikowich, & Purcell, 1998).

6. **Gifted education programs and strategies are effective at serving gifted and high-ability students in a variety of educational settings and from diverse ethnic and socioeconomic populations. Gifted education pedagogy can also reverse underachievement in these students** (Baum, 1988; Baum, Hébert, & Renzulli, 1999; Colangelo, Assouline & Gross, 2004; Gavin, et al, 2007; Hébert, & Reis, 1999; Little, Feng, VanTassel-Baska, Rogers, Avery, 2007; Reis, & Diaz, 1999; Reis, et al, 2007).

7. **The curriculum and pedagogy of gifted programs can be extended to a variety of content areas resulting in higher achievement for both gifted, average, and some enrichment pedagogy can benefit struggling and special needs students when implemented in a wide variety of settings** (Baum, 1988; Kulik, 1992; Field, G.B., nd; Gentry, 1999; Gavin, et al, 2007; Reis, et al, 2003; Reis, et al, 2007; Little, Feng,, VanTassel-Baska, Rogers, Avery, 2007; VanTassel-Baska,, Zuo, Avery, & Little, 2002).

8. **Some gifted students with learning disabilities who are not identified experience emotional difficulties and seek counseling. High percentages of gifted students do underachieve, but this underachievement can be reversed. Some gifted students do drop out of high school.** (Baum, 1988; Baum, Hébert, & Renzulli, 1999; Hébert, & Reis, 1999; Reis, Neu, & McGuire, 1997; Renzulli & Park, 2000).

9. **Gifted education programs and strategies benefit gifted and talented students longitudinally,** helping students increase aspirations for college and careers, determine post-secondary and career plans, develop creativity and motivation that is applied to later work, and achieving more advanced degrees (Colangelo, Assouline & Gross, 2004; Delcourt, 1993; Hébert, 1993; Taylor, 1992; Lubinski, et al, 2001).

The research reviewed in this report supports that:

1. Gifted and talented students and those with high abilities need gifted education programs that will challenge them in regular classroom settings and enrichment and accelerated programs to enable them to make continuous progress in school.

2. The lack of teacher training and professional development in gifted education for classroom teachers will result in fewer challenges, less differentiation, and lower achievement for gifted and talented students.

3. Longitudinal research demonstrates the effectiveness of gifted education programs and curriculum in raising student achievement, as well as helping students to develop interests, creativity, and productivity, and career goals.

4. Gifted education curriculum, services, and programs often benefits other students in addition to identified gifted students, including those who are culturally diverse, poor, or with special needs.

5. Teachers can learn how to differentiate and compact curriculum to provide more challenge to all students, when they have the professional development, time, and support to learn how to effectively implement these skills and strategies.

6. Gifted students do underachieve and drop out of school, but those who do can reverse their underachievement and stay in school when provided with challenging enriched learning opportunities in areas of interest.

Table 1.
Research Studies

Author & Date	Title of Study	Sample	Major Results and Findings
The Needs of Gifted and Talented Students Are Generally Not Met in American Classrooms.			
Archambault, Westberg, Brown, Hallmark, Emmons, & Zhang (1993)	The Classroom Practices Survey	*N*=7300 randomly selected 3rd and 4th grade teachers	Sixty-one percent of approximately 7300 randomly selected third and fourth grade teachers in public and private schools in the United States reported that they had **never** had any training in teaching gifted students. **The major finding of this study is that classroom teachers make only minor modifications on a very irregular basis in the regular curriculum to meet the needs of gifted students**. This result was consistent for all types of schools sampled and for classrooms in various parts of the country and for various types of communities.
Westberg, Archambault, Dobyns, & Salvin (1993)	Classroom Practices Observational Study	*N*=46 teachers *N*=96 students E	Systematic observations conducted in 46 third or fourth grade classrooms with two students, one high ability student and one average ability student, found that little differentiation in the instructional and curricular practices, including grouping arrangements and verbal interactions, for gifted students in the regular classroom. In all content areas in 92 observation days, gifted students rarely received instruction in homogeneous groups (only 21% of the time), and targeted **gifted students experienced no instructional or curricular differentiation in 84% of the instructional activities in which they participated.**
Reis, & Purcell (1993) Reis, Westberg, Kulikowich & Purcell (1998)	An analysis of content elimination and strategies used by elementary classroom teachers in the curriculum compacting process.	*N*=46 3rd- 4th grade classroom teachers; *N*=150 students; random assignment E	The use of curriculum compacting was examined to modify the curriculum and eliminate previously mastered work for high ability/gifted students. **When classroom teachers eliminated between 40-50% of the previously mastered regular curriculum for high ability students, no differences were found between students whose work was compacted and students who did *all* the work in reading, math computation, social studies and spelling.** Almost all classroom teachers learned to use compacting, but needed coaching and help to substitute appropriately challenging options.
Reis, Gubbins, Briggs, Schreber, Richards, Jacobs, Eckert, & Renzulli (2004)	Reading instruction for talented readers: Case studies documenting few opportunities for continuous progress	*N*=12 teachers; *N*=350 students E, M	Research was conducted in 12 different third and seventh grade reading classrooms in both urban and suburban school districts over a 9-month period. **Results indicated that little purposeful or meaningful differentiated reading instruction was provided for talented readers** in any of the classrooms**.** Above-grade level books were seldom available for these students in their classrooms, and they were not often encouraged to select more challenging books from the school library. Talented readers seldom encountered challenging reading material during regular classroom instruction. Even less advanced content and instruction was made available for urban students than for suburban.

Moon, Tomlinson, & Callahan (1995)	Academic diversity in the middle school: Results of a national survey of middle school administrators and teachers	*N*= 449 Teachers (61 % response rate); *N*= 500 Principals (25 % response rate)	**Teachers and principals admitted that academically diverse populations receive very little, if any, targeted attention in their schools.** Teachers report the use of little differentiation for gifted middle school students. Both principals and teachers hold beliefs that may deny challenge to advanced middle school students, as the overwhelming majority believe that these students are more social than academic. Half of the principals and teachers believe that middle school learners are in a plateau learning period when little new learning takes place—a theory which supports the idea that basic skills instruction, low level thinking, and small assignments are appropriate.
Robinson (1991)	Cooperative learning and the academically talented students	Research Synthesis	**Cooperative learning opportunities do not usually challenge gifted and talented students** and should not be substituted for specialized programs and services for academically talented students. A lack of attention to the needs of gifted students may result when cooperative learning is used for this population, who often require more advanced content and faster pacing.
Hébert & Reis (1999) Reis & Diaz (1999)	Case Studies of Talented Students Who Achieve and Underachieve in an Urban High School	*N*=35 high school students S	**Half of the 35 students who participated in this longitudinal study conducted in an urban high school were underachieving in school.** Some of the high achieving students also experienced periods of underachievement in school. Talented students who achieve in school acknowledged the importance of being grouped together in honors and advanced classes for academically talented students. Underachievement for the other students began in elementary school when they were not provided with appropriate levels of challenge and never learned to work.
Renzulli & Park (2000)	Gifted Dropouts: The Who and the Why	*N*=12, 625 high school students S National Education Longitudinal Study (NELS: 1988)	**Approximately 5 % of a large, national sample of gifted students dropped out of high school.** Gifted students left school because they were failing school, didn't like school, got a job, or were pregnant, although there are many other related reasons. Many gifted students who dropped out of school participated less in extracurricular activities. Many gifted students who dropped out of school were from low SES families and racial minority groups, and had parents with low levels of education.
Benefits of Gifted Programs for Gifted Students with LD and Special Needs			
Baum (1988)	An enrichment program for gifted learning disabled students	*N*=7 E	Gifted program participants who were both gifted and learning disabled and had the opportunity to participate in advanced projects **improved gifted/learning disabled students' behavior, self-regulation and self-esteem.**
Baum, Hébert, & Renzulli (1999)	Students who underachieve	*N*=17 E, M	When given gifted programming options (self-selected independent study with a mentor), **82% of gifted underachieving students reversed their underachievement** when they had the opportunities for strength-based gifted programming.
Reis, Schader, Milne, & Stephens (2003)	Music & minds: Using a talent development approach for young adults with Williams syndrome	*N*=16 S	**The use of participants' interests and the opportunity to participate in advanced training in music was found to significantly increase achievement in math,** enhance all participants' understanding of mathematics and to provide opportunities for the further development of their interests and abilities, especially their potential in music.

Longitudinal Benefits Of Gifted Programs			
Hébert (1993)	Reflections at graduation: The long-term impact of elementary school experiences in creative productivity	*N*=9 S	**Gifted programs had a positive effect on subsequent interests of students affect post-secondary plans;** early advanced project work serves as important training for later productivity; non-intellectual characteristics with students remain consistent over time.
Lubinski, Webb, Morelock, & Benbow (2001)	Top 1 in 10,000: A 10-Year Follow-up of the Profoundly Gifted	*N*=320 students PS	**Follow-up studies found that 320 gifted students identified as adolescents pursued doctoral degrees at over 50X the base rate expectations**. The base rate expectation for the general population is 1%--1 in 100.
Westberg (1999)	A longitudinal study of students who participated in a program based on the Enrichment Triad Model in 1981-1984	*N*=15 E, S	**Students maintained interests and were still involved in both interests and creative productive work after they finished college and graduate school.**
Delcourt (1993)	Creative productivity among secondary school students: Combining energy, interest, and imagination.	*N*=18 S	Benefits of gifted programs indicate that students maintained interests over time and were still involved in creative productive work. **Students who had participated in gifted programs, maintained interests and career aspirations in college.** Students' gifts and talents could be predicted by their elementary school creative/productive behaviors.
Taylor (1992)	The effects of the Secondary Enrichment Triad Model on the career development of vocational-technical school students	*N*=60 S	Students' involvement in gifted programs in high school enabled them to explore potential career interests and allow students to see themselves in the role of practicing professionals and visualize a different sense of self. **Students had increased post-secondary education plans (from attending 2.6 years to attending 4.0 years).**
Moon, Feldhusen, & Dillon (1994)	Long-Term Effects of an Enrichment Program Based on the Purdue Three-Stage Model	*N*=23 students *N*=22 parents E	This retrospective study investigated the effects of an elementary pull-out program gifted program based on the Purdue Three-Stage Model. **Students and their families indicated the program had a long-term positive impact on the cognitive, affective, and social development of most participating students.**
Lubinski, Benbow,Webb, & Bleske-Rechek (2006)	Tracking Exceptional Human Capital Over Two Decades	Participants: 286 males, 94 females	Talent-search participants scoring in the top .01% on cognitive-ability measures were identified before age 13 and tracked over 20 years. Their creative, occupational, and life accomplishments are compared with those of graduate students (299 males, 287 females) enrolled in top-ranked U.S. mathematics, engineering, and physical science programs in 1992 and tracked over 10 years. By **their mid-30s, the two groups achieved comparable and exceptional success (e.g., securing top tenure-track positions) and reported high and commensurate career and life satisfaction.**
Park, Lubinski, & Benbow (2007)	Contrasting Intellectual Patterns Predict Creativity in the Arts and Sciences: Tracking Intellectually Precocious Youth Over 25 Years	*N*=2409 PS	A sample of 2,409 intellectually talented adolescents (top 1%) who were assessed on the SAT by age 13 was tracked longitudinally for more than 25 years. **Their creative accomplishments, with particular emphasis on literary achievement and scientific-technical innovation, were examined and results showed that distinct ability patterns identified by age 13** portend contrasting forms of creative expression by middle age.

Student Achievement Increases/Gains Using Gifted Education Curriculum and/or Grouping Strategies			
Reis, Westberg, Kulikowich, & Purcell (1998)	Curriculum compacting and achievement test scores: What does the research say?	*N*=336 E, M	**Teachers using curriculum compacting for gifted students could eliminate 40%-50% of regular curriculum for gifted students and produced achievement scores** that were either the same as a control group or higher math and science, regardless of what they did instead (independent study in a different content area).
Reis et al. (2007)	The Schoolwide Enrichment Model in Reading	*N*=1,500 E, M	All students, including gifted students, were randomly assigned to the SEM-R intervention or to continue with the regular reading program as control students. **Those who participated in the enriched and accelerated SEM-R program had significantly higher scores in reading fluency and attitudes toward reading than students in the control group, who did not participate.** Students in the SEM-R treatment group scored statistically significantly higher than those in the control group in both oral reading fluency and comprehension, as well as attitudes toward reading.
Gentry & Owen (1999)	Promoting Student Achievement and Exemplary Classroom Practices Through Cluster Grouping: A Research-Based Alternative to Heterogeneous Elementary Classrooms	*N*=226 E	**Students at all achievement levels (high, medium and low) benefited from cluster grouping and other forms of instructional grouping accompanied by differentiated instruction and content.** Students who were in cluster groups scored significantly higher than students who did More students were identified as high achieving during the three years that cluster grouping was used in the school.
Kulik (1992)	An analysis of the research on ability grouping: Historical and contemporary perspectives	Research Synthesis	Achievement is increased when gifted and talented students are grouped together for enriched or accelerated learning. Ability grouping without curricular acceleration or enrichment produces little or no differences in student achievement. **Bright, average, and struggling students all benefit from being grouped with others in their ability/instructional groups when the curriculum is adjusted to the aptitude levels of the group**. When gifted students are grouped together and receive advanced enrichment or acceleration, they benefit the most because they outperform control group students who are not grouped and do not receive enrichment or acceleration by five months to a full year on achievement tests.
Rogers (1991)	The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner	Research Syntheses	**Grouping gifted and talented students for instruction improves their achievement**. Full-time ability/instructional grouping produces substantial academic gains in these students. Pullout enrichment grouping options produce substantial academic gains in general achievement, critical thinking, and creativity. Within-class grouping and regrouping for specific instruction options produce substantial academic gains provided the instruction is differentiated. Cross-grade grouping produces substantial academic gains. Several forms of acceleration also produced substantial academic effects. Cluster grouping produces substantial academic effects.

Field (2007)	An experimental study using Renzulli Learning to investigate reading fluency and comprehension as well as social studies achievement	*N*=383 E, M	**After 16 weeks, students who participated in enrichment and differentiated programs using Renzulli Learning for 2-3 hours each week demonstrated significantly higher growth in reading comprehension than control group students who did not participate in the program.** Students who participated in Renzulli Learning demonstrated significantly higher growth in oral reading fluency and in social studies achievement than those students who did not participate.
Colangelo, Assouline, & Gross (2004)	Benefits of various forms of acceleration	Research Syntheses	**The use of many different types of acceleration practices results in higher achievement for gifted and talented learners**. Students who are accelerated tend to be more ambitious, and they earn graduate degrees at higher rates than other students. Interviewed years later, an overwhelming majority of accelerated students say that acceleration was an excellent experience for them. Accelerated students feel academically challenged and socially accepted, and they do not fall prey to the boredom, as do so many highly capable students who are forced to follow the curriculum for their age-peers.
Gubbins, Housand, Oliver, Schader, & De Wet (2007)	Unclogging the mathematics pipeline through access to algebraic understanding	*N*=5 teachers *N*=73 students M	Elementary grade students identified for an after-school program in algebra using grade 8, norm-referenced achievement and algebra aptitude tests; **the 30 hour intervention yielded significant pre/post achievement results in problem solving and data interpretation (17-point gain), and algebra tests.**
Gavin et al. (2007) Gavin et al (in preparation)	Math achievement was investigated using Project M^3: Mentoring Mathematical Minds curriculum units for mathematically talented students	*N*=41 teachers *N*=800 students E	**Challenging math curriculum resulted in significant gains in achievement in math concepts, computation, and problem solving each year over a 3-year period for talented math students in grades 3, 4, and 5.** Students using the curriculum outperformed a comparison group of students of like ability from the same schools. Significant gains were found on challenging open-ended problems adapted from international and national assessments in favor of students using the project m^3 curriculum over the comparison group. Students receiving the advanced math achieved significant gains in all mathematical concepts across grade levels.
Tieso (2002)	The Effects of Grouping and Curricular Practices on Intermediate Students' Math Achievement	*N*= 31 teachers *N*=645 students E, M	**Results indicated significant differences on math achievement for treatment group students (who were grouped for an enriched math lesson and exposed to an enhanced unit) when compared to the comparison groups.** Further, results indicated significant differences favoring the group that received a modified and differentiated curriculum in a grouped class.
Reis et al. (1997)	Talents in Two Places: Case Studies of High Ability Students	*N*=12 currently enrolled college or university students PS	Gifted students with learning disabilities in this study encountered many negative experiences in school, often failed to be identified as either gifted or learning disabled, and **half had psychological problems that required professional help and support in subsequent years**.
Little, Feng,VanTassel-Baska, Rogers, & Avery (2007)	A Study of Curriculum Effectiveness in Social Studies	*N*=1,200 (Treatment - 941 Comparison – 251)	A quasi-experimental study examined the effects on student performance of a Javits-funded curriculum designed to respond to the needs of high-ability students in elementary and middle school social studies. **Results demonstrate significant differences between treatment and comparison groups in the area of content learning, favoring the treatment group;** but no significant differences are found for the small sub-sample of gifted students.

VanTassel-Baska, Bass, Ries, Poland, & Avery (1998)	A National Pilot Study of Science Curriculum Effectiveness for High Ability Students.	*N*=1,471 E	**Results indicate small but significant gains for students using a unit on the dimension of integrated science process skills when compared to equally able students not using the units.**
VanTassel-Baska, Zuo, Avery, & Little (2002)	Gifted Students' Learning Using the Integrated Curriculum Model (Icm): Impacts and Perceptions of the William and Mary Language Arts and Science Curriculum	*N*=2,189 E	**Findings suggest that gifted student learning at grades 3 to 5 was enhanced at significant and important levels in language arts critical reading and persuasive writing and scientific research design skills**, through the use of the curriculum across individual academic years.
Vaughn, Feldhusen, & Asher (1991)	Meta-Analyses and Review of Research on Pull-Out Programs in Gifted Education	Research synthesis	The purpose of this research was to evaluate the effectiveness of pull-out programs in gifted education. Nine experimental studies were located that dealt with pull-out programs for gifted students. The variables of self-concept, achievement, critical thinking, and creativity were quantified via meta-analysis. **The results indicate that pull-out models in gifted education have significant positive effects for the variables of achievement, critical thinking, and creativity**

*P=Primary grades, K-2; E=Elementary grades, 3-5; M=Middle grades, 6-8; S, H=Secondary or High School grades, 9-12. PS=Post secondary grades.

References

Archambault, F. X., Jr., Westberg, K. L., Brown, S., Hallmark, B. W., Emmons, C., & Zhang, W. (1993). *Regular classroom practices with gifted students: Results of a national survey of classroom teachers* (RM93102). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Baum, S. M. (1988). An enrichment program for gifted learning disabled students. *Gifted Child Quarterly, 32*, 226-230.

Baum, S. M., Renzulli, J. S., & Hébert, T.P. (1999). Reversing underachievement: Creative productivity as a systematic intervention. *Gifted Child Quarterly, 39,* 224-235.

Colangelo, N., Assouline, S., & Gross, M. (Eds). (2004). *A nation deceived: How schools hold back America's brightest students*. Iowa City, IA: The University of Iowa, pp. 109-117.

Delcourt, M. A. B. (1993). Creative productivity among secondary school students: Combining energy, interest, and imagination. *Gifted Child Quarterly, 37*, 23-31.

Feng, A., VanTassel-Baska, J., Quek, C., Bai, W., & O'Neill, B. (2005). A longitudinal assessment of gifted students' learning using the integrated curriculum model (ICM): Impacts and perceptions of the William and Mary language arts and science curriculum. *Roeper Review, 27*, 78-83.

Field, G.B. (submitted). The effects of using Renzulli Learning on student achievement: An investigation of internet technology on reading fluency, comprehension, and social studies. *The Reading Teacher.*

Gavin, M. K., Casa, T. M., Adelson, J. L., Carroll, S. R., Sheffield, L. J., & Spinelli, A. M. (2007). Project M^3: Mentoring mathematical minds: Challenging curriculum for talented elementary students. *Journal of Advanced Academics, 18*, 566-585.

Gavin, M. K., Casa, T. M., Carroll, S. R. (in preparation). An investigation of the effectiveness of curriculum units on the achievement of mathematically promising students.

Gentry, M.L., & Owen, S.V. (1999). An investigation of the effects of total school flexible cluster grouping on identification, achievement, and classroom practices**.** *Gifted Child Quarterly, 43,* 224 - 243.

Gubbins, E. J., Housand, B., Oliver, M., Schader, R., & De Wet, C. (2007). *Unclogging the mathematics pipeline through access to algebraic understanding*: *University of Connecticut Site.* Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Hébert, T. P. (1993). Reflections at graduation: The long-term impact of elementary school experiences in creative productivity. *Roeper Review, 16,* 22-28.

Hébert, T. H., & Reis, S. M. (1999). Culturally diverse high-achieving students in an urban high school. *Urban Education*, *34*, 428-457.

Kulik, J. A. (1992). *An analysis of the research on ability grouping: Historical and contemporary perspectives* (RBDM 9204). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Kulik, C.L.C., & Kulik, J.A. (1982). Effects of ability grouping on secondary school students: A meta-analysis of evaluation findings. *American Educational Research Journal, 19*, 415-428.

Lubinski, D., Webb, R. M., Morelock, M. J., & Benbow, C. P. (2001). Top 1 in 10,000: A 10 year follow-up of the profoundly gifted. *Journal of Applied Psychology, 4,* 718-729.

Moon, T. R., Tomlinson, C. A., & Callahan, C. M. (1995). Academic diversity in the middle school: *Results of a national survey of middle school administrators and teachers* (Research Monograph 95124). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Moon, S. M., Feldhusen, J. F., & Dillon, D. R. (1994). Long-term effects of an enrichment program based on the purdue three-stage model. *Gifted Child Quarterly, 38*, 38-48.

Park, G., Lubinski, D., & Benbow, C. P. (2007) Contrasting intellectual patterns predict creativity in the arts and sciences: tracking intellectually precocious youth over 25 years. *Psychological Science, 18*, 948–95.

Reis, S. M., & Diaz, E. I. (1999). Economically disadvantaged urban female students who achieve in school. *The Urban Review, 31*, 31-54.

Reis, S. M., Gentry, M., & Maxfield, L. R. (1998). The application of enrichment clusters to teachers' classroom practices. *Journal for Education of the Gifted, 21*, 310-324.

Reis, S. M., Gubbins, E. J., Briggs, C., Schreiber, F. R., Richards, S., & Jacobs, J. (2004). Reading instruction for talented readers: Case studies documenting few opportunities for continuous progress. *Gifted Child Quarterly, 48*, 309-338.

Reis, S. M., McCoach, D. B., Coyne, M., Schreiber, F. J., Eckert, R. D., & Gubbins, E. J. (2007). Using planned enrichment strategies with direct instruction to improve reading fluency, comprehension, and attitude toward reading: An evidence-based study. *The Elementary School Journal, 108,* 3-24.

Reis, S. M., Neu, T. W., & McGuire, J. M. (1997). Case studies of high ability students with learning disabilities who have achieved. *Exceptional Children, 63*(4), 1-12.

Reis, S. M., & Purcell, J. H. (1993). An analysis of content elimination and strategies used by elementary classroom teachers in the curriculum compacting process. *Journal for the Education of the Gifted,* 16(2), 147-170.

Reis, S. M., Schader, R., Milne, H., & Stephens, R. (2003). Music & minds: Using a talent development approach for young adults with Williams syndrome. *Exceptional Children, 69*, 293-314.

Reis, S. M., & Diaz, E. I. (1999). Economically disadvantaged urban female students who achieve in school. *The Urban Review,* 31(1), 31-54.

Reis, S. M., McCoach, D. B., Coyne, M., Schreiber, F.J., Eckert, R.D., Gubbins, E.J. (2007). Using planned enrichment strategies with direct instruction to improve reading fluency, comprehension, and attitude toward reading: An evidence-based study. *The Elementary School Journal,108,* 3-24.

Reis, S. M., Westberg, K. L., Kulikowich, J. M., & Purcell, J. H. (1998). Curriculum compacting and achievement test scores: What does the research say? *Gifted Child Quarterly, 42,* 123-129.

Renzulli, J. S., & Park, S. (2000). Gifted dropouts: The who and the why. *Gifted Child Quarterly*, *44*, 261-271.

Robinson, A. (1991). Cooperative learning and the academically talented students (RBDM 9106). Storrs, CT: The National Research on the Gifted and Talented, University of Connecticut.

Rogers, K. B. (1991). The relationship of grouping practices to the education of the gifted and talented learner (RBDM 9102). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Taylor, L. A. (1992). *The effects of the Secondary Enrichment Triad Model and a career counseling component on the career development of vocational-technical school students.* Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Tieso, C. L. (2002). The effects of grouping and curricular practices on intermediate students' math achievement (RM02154). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Vaughn, V. L., Feldhusen, J. F., & Asher, J. W. (1991). Meta-analyses and review of research on pull-out programs in gifted education. *Gifted Child Quarterly*, *35*, 92-98.

VanTassel-Baska, J., Bass, G. M., Ries, R. R., Poland, D. L., & Avery, L. D. (1998). A national pilot study of science curriculum effectiveness for high ability students. *Gifted Child Quarterly, 42,*200-211.

VanTassel-Baska, J., Zuo, L., Avery, L.D., & Little, C.A. (2002). A curriculum study of gifted student learning in the language arts. *Gifted Child Quarterly,* 46, 30-44.

Westberg, K. L. (1999, Summer). What happens to young, creative producers? *NAGC: Creativity and Curriculum Divisions' Newsletter,* pp. 3, 13-16.

Westberg, K. L., Archambault, F. X., Jr., Dobyns, S. M., & Salvin, T. J. (1993). *An observational study of instructional and curricular practices used with gifted and talented students in regular classrooms.* (RM93104). Storrs, CT: The National Research Center on the Gifted and Talented: The University of Connecticut.