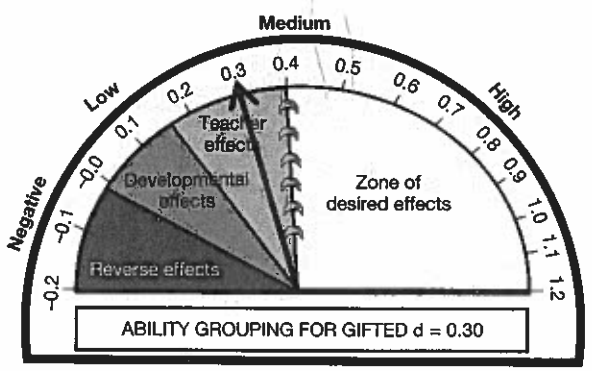
Students are retained in rather arbitrary and inconsistent ways, and those flunked are more likely to be poor, male and from a minority, although holding students back is practiced to some degree in rich and poor schools alike. The effects of flunking are immediately traumatic to the children and the retained children do worse academically in the future, with many of them dropping out of school altogether. Incredibly, being retained has as much to do with children dropping out as does their academic achievement. It would be difficult to find another educational practice on which the evidence is so unequivocally negative (House, 1989).

School curricula effects for gifted students

The school curricula effects discussed in this section relate to structuring differential curricula experiences for gifted and talented students within schools, such as ability grouping for gifted students, acceleration, and enrichment. Each of these is considered in turn below. In comparing results for the three methods overall, the most effective for influencing the outcomes of gifted students was acceleration ($d = 0.84$). This compares to $d = 0.39$ or enrichment and $d = 0.30$ for ability grouping—which leads to the question of why acceleration is the least implemented of the three.

Ability grouping for gifted students

It is important to separate gifted programs from high-ability tracks. The latter typically receive a faster pace of instruction and more challenging tasks within the same curriculum frameworks as medium- and low-ability students, whereas the former often have different curricula. Herein lies a key distinction. Where there are specific curricula aimed at challenging students at the appropriate level then there is more likelihood of success in engagement and learning. For example, Kulik and Kulik (1984) found that ability grouping had a positive effect on the achievement of gifted and talented elementary school students ($d = 0.49$). Goldring (1990) found that gifted students, when placed in special, homogeneous classes with challenging curricula, achieved more than gifted counterparts in regular classes. For students in special classes, the greatest advantages were in science and social science tests and the smallest were in reading and writing. There was no evidence of negative or differential social effects: there were no differences in general self-concept or creativity for students in special classes and those in regular classes. Vaughn,



KEY	
Standard error	0.064 (Medium)
Rank	87th
Number of meta-analyses	5
Number of studies	125
Number of effects	202
Number of people (0)	na

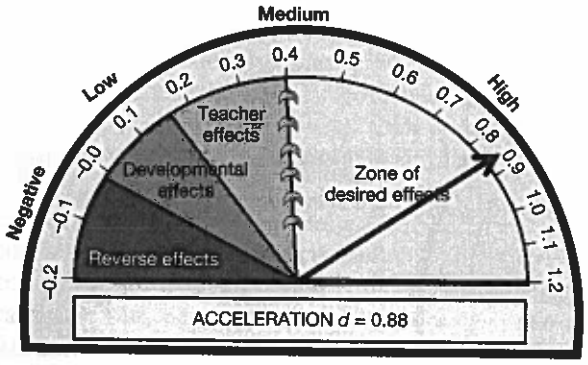
Feldhusen, and Asher (1991) found positive effects from various creativity programs on self-concept (d = 0.11), achievement (reading and vocabulary; d = 0.65), and creative thinking (d = 0.44).

Acceleration

An alternative to special classes for gifted children is to accelerate students through the curricula: "Accelerated instruction enables bright students to work with their mental peers on learning tasks that match their abilities" (Kulik & Kulik, 1984b, p. 84). It typically involves progress through an educational program at rates faster or ages younger than is conventional (Pressey, 1949), although there are many options, such as curriculum compacting or telescoping, and advanced placement. Kulik and Kulik in their meta-analyses on the effects of accelerated instruction on students (Kulik & Kulik, 1984a, 1984b) found that accelerated students surpassed the performance of non-accelerated students of an equivalent age and intelligence by nearly one grade level (d = 0.88). Kulik (2004) revisited those studies that had some form of controlled design. Those that compared accelerated students with same-age controls had much greater effects (d = 0.80) than those that compared accelerated students with older control groups (d = –0.04). Again, he concluded that accelerated students did just as well as the bright students in the grades into which they moved. He also noted that accelerated students had higher educational ambitions, and were no different in rates of participation in school activities.

George, Cohn, and Stanley (1979) reviewed the acceleration and enrichment research and concluded that there were no studies which have shown enrichment to provide superior results over accelerative methods; at best, enrichment may only defer boredom. The major question is why there is so much resistance to acceleration, and their claim is that it is usually preconceived and irrational claims about social and emotional acceptability of accelerated students, or some timetabling barriers. Kulik and Kulik (1984a) found that students' attitudes towards schools seemed largely unaffected by instruction in accelerated programs.

If acceleration is so successful then why is it one of least used methods for gifted students? The typical claim is that acceleration is not beneficial from social and interpersonal perspectives. In a meta-analysis directed at this question of the social effects, Kent (1992) found an average effect of only d = 0.13, in favor of gifted students in accelerated programs—if anything, there were positive social effects of acceleration and negative



KEY	
Standard error	0.183 (High)
Rank	5th
Number of meta-analyses	2
Number of studies	37
Number of effects	24
Number of people (1)	4,340

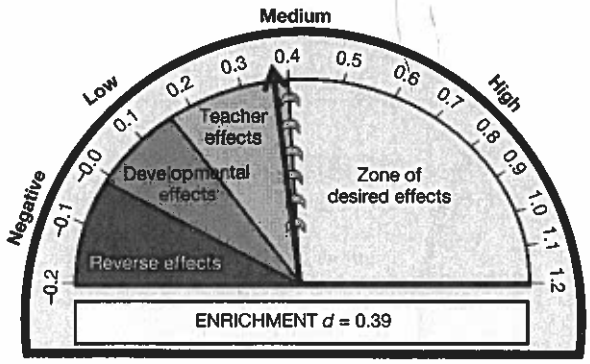
effects if *not* accelerated. There were few differences between methods of acceleration (telescoping was the highest effect, $d = 0.15$), or by sex (boys $d = 0.21$, girls $d = 0.15$). Instead, we may need to question the negative social impact on gifted students if they are not accelerated!

Levin (1988) asked, if acceleration is so beneficial for gifted students, why could it not also be used with non-gifted students? Hence, his Accelerated Learning program aims to accelerate the learning of at-risk students so that they are able to perform at grade level by the end of elementary school. These programs involve high expectations, specified deadlines for meeting educational requirements, stimulating instructional programs, planning by all staff, and using all available community resources. The evidence, however, is limited from a meta-analysis standpoint: Borman and D'Agostino (1995) claimed Accelerated Learning had "highly promising evidence of effectiveness" although the overall effect size was only $d = 0.09$.

Enrichment

Enrichment involves activities meant to broaden the educational lives of some group of students (George *et al.*, 1979). Wallace (1989) reported that enrichment was stronger in mathematics ($d = 1.10$) and science ($d = 1.23$) than in reading ($d = 0.59$) or social studies ($d = 0.23$). Programs in which students mastered more mature ideas had higher effects than those with a broader investigation of the regular curriculum. Teachers with more years of teaching gifted students had greater ($d = 0.88$) effects than those with no or limited experience ($d = -0.06$).

There are many forms of enrichment and one of the more common is Feuerstein's Instrumental Enrichment program (Feuerstein, 1980). These programs aim to teach critical thinking skills via a series of 13 to 15 instruments to be completed in one-hour lessons three to five times a week for two to three years. Each instrument concerns a specific cognitive deficiency such as blurred and sweeping perceptions, unplanned impulsive exploratory behavior, lack of receptive verbal tools, lack or impaired conservation of constancy such as size, shape or quantity, deficient need for precision and accuracy, impaired capacity for considering two or more sources of information at once, inadequacy in experiencing the existence of an actual problem and then defining it, inability to select relevant as opposed to irrelevant cues, lack of or impaired need for pursuing logical evidence, and so on. Shiell (2002) reviewed the effects of Feuerstein's



KEY	
Standard error	0.018 (Low)
Rank	68th
Number of meta-analyses	3
Number of studies	214
Number of effects	543
Number of people (2)	36,336

programs and the overall effect on achievement was $d = 0.26$. Romney and Samuels' (2001) meta-analysis found a $d = 0.35$ effect on achievement.

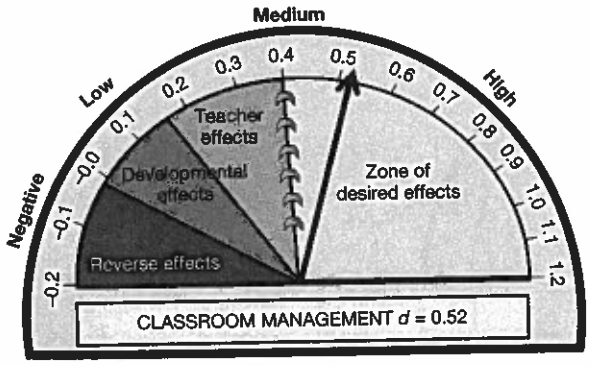
Classroom influences

The final section in this chapter concerns various influences within the class, such as climate of the class, the presence of disruptive students and decreasing this disruptive effect on all students, and peer influences.

Climate of the classroom: classroom management

Marzano (2000) investigated the effects of various classroom management processes on a number of outcomes, including achievement. The effect on achievement from well-managed classrooms was $d = 0.52$ and on heightened engagement was $d = 0.62$. The attributes of teachers that had the greatest influence on ensuring well-managed classrooms and reducing disruption came from having an appropriate mental set ($d = 1.29$) or "with-it-ness" ($d = 1.42$) by the teacher; that is, the teacher had the ability to identify and quickly act on potential behavioral problems, and retained an emotional objectivity ($d = 0.71$). These factors are related to what Langer (1989) called situational awareness or mindfulness. The next most effective methods were disciplinary interventions ($d = 0.91$), which included verbal and physical behaviors of teachers that indicated to students that their behavior was appropriate or inappropriate ($d = 1.00$); group contingency strategies, which required a specific set of students to reach a certain criterion level of appropriate behavior ($d = 0.98$); tangible recognition, which included those strategies in which students were provided with some symbol or token for appropriate behavior ($d = 0.82$); and interventions that involved a direct and concrete consequence for misbehavior ($d = 0.57$).

Teacher–student relationships were powerful moderators of classroom management ($d = 0.87$, see also Cornelius-White, 2007). The major factors included what Marzano (2000) termed 'high dominance' (clarity of purpose and strong guidance) and 'high cooperation' (concern for the needs and opinions of others and a desire to function as a member of a team). Rules and procedures ($d = 0.76$) involved stated expectations regarding behavior and well articulated rules and procedures that were negotiated with students.



KEY	
Standard error	Na
Rank	42nd
Number of meta-analyses	1
Number of studies	100
Number of effects	5
Number of people (0)	na