WHAT THE RESEARCH SAYS ABOUT THE EFFECTS OF POLICIES AND REGULATIONS ON GIFTED EDUCATION

Yara N. Farah, Kimberly A. Hardin, and
Susan K. Johnsen, Ph.D.

PRACTICES, regulations, and policies for gifted education differ from state to state because the federal government does not mandate gifted education services (CSDPG & NAGC, 2013; Plucker, Hardesty, & Burroughs, 2013). Several reports have examined the policies and practices affecting the education of gifted and talented students around the nation (CSDPG & NAGC, 2013; Education Trust, 2013; Olszewski-Kubilius & Clarenbach, 2012; Plucker et al., 2013.; Xiang, Dahlin, Cronin, Theaker, & Durant, 2011). Although definitions of gifted and talented, the identification process, funding, services, and teacher training varies from state to state (CSDPG & NAGC, 2013), common themes have emerged: achievement and excellence gaps (Education Trust, 2013; Olszewski-Kubilius & Clarenbach, 2012; Plucker et al., 2013; Xiang et al., 2011), educational priorities not focused on high-ability students (Bromberg and Theokas, 2013; Olszewski-Kubilius & Clarenbach, 2012; Xiang et al., 2011), limited access to high-quality programs (Bromberg & Theokas, 2013; Xiang et al., 2011), and underrepresentation of students from low socioeconomic status (Bromberg & Theokas, 2013; Olszewski-Kubilius & Clarenbach, 2012; Plucker et al., 2013).

To further understand the effect of policies and regulations influencing practices for gifted and talented students, this review included articles that had been published since 2004 in *Gifted Child Today, Gifted Child Quarterly, Journal for the Education of the Gifted, Journal of Advanced Academics,* and *Roeper Review.* To be included, articles needed to discuss or examine the effects of policies, high-stakes testing, and standards on gifted education practices. Articles that did not examine these effects were excluded. Using these criteria, 20 articles were identified and summarized.

The type of articles varied and included descriptions with recommendations (n = 7), position papers (n = 6), and empirical studies (n = 7). Of those that were studies, three were qualitative, two were quantitative, and two were mixed-methods. Within the studies, a diverse group of participants were examined: elementary, middle, and high school students; teachers; policy makers; and administrators. The majority of the articles focused on policies and standards (n = 8), followed by a focus on high-stakes testing (n = 5), and quality of services (n = 2).

When looking at policies and standards, four articles discussed the overall status of gifted education in the United States (Ambrose, VanTassel-Baska, Coleman, & Cross, 2010; Dai, 2013; Gentry, 2006; Kaplan, 2014). The field of gifted education is seen as fragmented at each and within each of four levels: research, practices, applications, and philosophies (Ambrose et al., 2010). The low quality of education offered to gifted students is viewed as an outcome of the No Child Left Behind Act (NCLB; Gentry, 2006; Rakow, 2008) and the Common Core State Standards (Kaplan, 2014). In fact, education currently has a focus on achieving proficiency rather than excellence (Dai, 2013). Within these articles, recommendations to policy makers, administrators, and teachers are proposed to better meet the needs of gifted education.

Five articles looked at policies for gifted and talented instruction within specific states. Brown et al. (2006) examined the policy in Indiana, North Carolina, Pennsylvania, South Carolina, and Virginia. They found that each state had its own policy regarding: (a) definition and identification, (b) programming, (c) curriculum and instruction, and (d) professional development. Policies in South Carolina were also examined in two other articles (Swanson, 2007; Swanson & Lord, 2013). According to Swanson (2007) improvement in the field of gifted education has been noticeable in her state. In fact, there is greater connection between general education and gifted education. In addition, the continuous development of polices have proven to have major benefits on areas such as funding, teacher training, and stability (Swanson & Lord, 2013). Two other states, Florida and Texas, have also sought to improve gifted education (Weber, Boswell, & Smith, 2008). The authors described the process these states used in their pursuit of curricular reform. Both states developed professional development materials for teachers to ensure high-quality curriculum and instruction. On the other hand, Mendoza (2006) found that teachers in Colorado reported the need for professional development in the area of gifted education due to the introduction of high-stakes testing as well as the accountability requirements of NCLB, which have had negative influences on teacher practices.

In examining the effects of high-stakes testing on classroom practices, the majority of the articles reported its negative influences with teachers focusing on underachievers and providing low-quality education for gifted and talented students. According to Moon (2009), high-stakes testing for accountability poses problems such as the narrowing of curriculum and instruction, unethical test preparation practices, inappropriate use of scores, and the potential for decreased motivation to learn in students. High-stakes testing is also designed to measure proficiency in typically developing children and cannot accurately report the performance and progress of gifted students (Ryser & Rambo-Hernandez, 2014). The authors

recommended the use of above-level and computer adaptive testing for gifted children. Hargrove (2008) concluded that teachers need to step outside of their comfort zone and the prescribed curriculum that focuses on meeting academic standards and address the academic, social, and affective needs of each child.

Specific programs and services offered to gifted students are also being influenced by current policies, regulations and standards (Peters & Mann, 2009). Schools in states such as Indiana offer Advanced Placement (AP), International Baccalaureate (IB), and Dual Enrollment/Dual Credit models for students. However, prerequisites such as grades, standardized test scores, and completed coursework narrow the eligibility. As a result, underserved populations have limited access to advanced courses. Although services for gifted students such as cluster grouping have resulted in benefits and positive growth for all students (Pierce et al., 2001), they need to be implemented with fidelity. Pierce et al. (2001) recommend ongoing support and professional development for teachers.

The overarching themes in these articles suggest that continuous development of policies and regulations that provide the foundation for gifted education are critical. Because no federal laws exist that specifically target gifted education, states must establish their own policies, standards and regulations to support the development and growth of gifted and talented students.

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Olszewski-Kubilius, P., & Clarenbach, J. (2012). *Unlocking emergent talent: Supporting high achievement of low-income, high-ability students*. Washington, DC: National Association for Gifted Children. Retrieved from http://www.jkcf.org/assets/1/7/Unlocking_Emergent_Talent.pdf

Since no federal laws exist that specifically target gifted education, states must establish their own policies, standards and regulations to support the development and growth of gifted and talented students.

Plucker, J. A., Hardesty, & Burroughs, N. A. (2013). *Talent on the sidelines: Excellence gaps and America's persistent talent underclass*. Storrs, CT: Center for Education Policy at the Neag School of Education, University of Connecticut. Retrieved from http://cepa.uconn.edu/mindthegap/

Xiang, Y., Dahlin, M., Cronin, J., Theaker, R., & Durant, S. (2011, September). *Do high flyers maintain their altitude? Performance trends of top students*. Washington, DC: Thomas B. Fordham Institute. Retrieved from http://edexcellence.net/publications/high-flyers.html

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Ambrose, D. (2012). Socioeconomic inequality and giftedness: Suppression and distortion of high ability. *Roeper Review*, *35*, 81–92.

This article used an interdisciplinary approach to understand socioeconomic inequality and its connections with giftedness, talent, and creativity. The analysis of inequality was done from the perspectives of economics, political science, social epidemiology, psychology, philosophy, sociology, evolutionary biology, primatology, and anthropology. The author identified a number of influences that contributed to socioeconomic inequality, including dogmatic ideology and its relation to economic theory; distorted, shallow philosophy; dysmorphic psychological dynamics; and political polarization and dominance. When inequality is present, the effect on the less privileged is more serious. In fact, when attention is focused on health and social problems, talents and ambitions of those who are gifted can be hidden. This provides an obstacle for educators and parents in identifying talented young individuals, as well as developing their potential. Clarification of these influences can help policy makers, educators, and parents become more aware, which can then open doors for gifted children. From this perspective, recommendations to the field of gifted education include developing a more refined conception of giftedness. In addition, more research and awareness about the ethical dimensions of creativity and giftedness should be propagated. Another important initiative in gifted education should be the collaboration and recognition of altruistic abilities.

Ambrose, D., VanTassel-Baska, J., Coleman, L. J., & Cross, T. L. (2010). Unified, insular, firmly policed, or fractured, porous, contested, gifted education? *Journal for the Education of the Gifted*, *33*, 453–478.

In this article, the authors analyzed the field of gifted education by looking for unified-insular and fractured-porous disciplinary structures. The analyses were done from four different vantage points or levels of analysis: the levels of practical application, research, theory, and philosophy. The authors were interested in answering three questions: Is the field fractured and porous

at one level of analysis while showing unity and insularity at another? Is the field moving toward or away from fragmentation, unity, or interdisciplinary porosity? Is it productive or harmful for the field to be fractured-porous or unified-insular at one or more levels? The authors use a metaphorical model to represent the field of gifted education. The model represents the field as an island continent with theoretical valleys, philosophical mountain peaks, and farmland of varying fertility. Four kinds of professionals work on this island: practitioner-colonists, research surveyors, theoretical expedition leaders, and philosophical mountain climbers. This model showed a better operation of the field can be done if the work of all professionals is embraced, as well as having communication between the four professionals. In fact, the authors analyze each level of the field. A pattern of fragmentation, porosity and contestation was found at each level. This horizontal fragmentation at the research level is due to the diverse interests favoring specific conceptions of giftedness. In fact, the theoretical level is also horizontally fragmented due to competition between proposed models. The division in the philosophical level can be explained by the differing world views and hence the conception of reality. Another type of fragmentation was also obvious: vertical fragmentation. This type of fragmentation represents the incoherence between levels, such as the disconnection between the research level and practical level. In addition, the horizontal fragmentation at the theory level disconnects the theoretical and research levels. The authors recommended that the field work toward a unification by proposing two strategies. First, a unification between researchers and practitioners can occur if the field adopts a single, overarching, dominant theory. The other strategy requires the field to determine a number of solid grounded theories that can form a puzzle-like mosaic of high ability. This attention to the structure and dynamic of the field can be eye opening.

Brown, E., Avery, L., VanTassel-Baska, J., Worley, B. B., & Stambaugh, T. (2006). A five-state analysis of gifted education policies. *Roeper Review*, *29*, 11–23.

This article examined the policy within and across five states to identify the nature and success of policies for gifted education. The Center for Gifted Education (CFGE) at The College of William and Mary analyzed state policy documents in depth and interviewed state officials and state advisory boards in gifted education. According to specific criteria listed in the article, the five states selected for this study were Indiana, North Carolina, Pennsylvania, South Carolina, and Virginia. These states represented three different legislative models for identification and services: permissive, mandated, or a combination of permissive and mandated. In the article, the authors discussed the findings for each state according to (a) definition and identification, (b) programming, (c) curriculum and instruction, (d) professional development, and (e) supplemental policies. In addition, a cross-state analysis was done according to the five previously listed themes. According to the authors, when states give the responsibility of policies to local districts, they should document how those decisions impact programming for gifted learners. Documentation and studying of standards, assessment and instructional deliveries are crucial to the field, especially for program planning.

Carpenter, D. M., II., & Ramirez, A. (2007). More than one gap: Dropout rate gaps between and among Black, Hispanic, and White students. *Journal of Advanced Academics*, *19*, 32–64. doi:10.4219/jaa-2007-705

The authors of this study used data from the National Educational Longitudinal Study of 1988 (NELS: 88) to extend prior research on achievement gaps between and among different racial groups. In their first study, the authors found that wider gaps existed within Black, Hispanic, and White populations than between the groups. In this two phase follow-up study the authors tested their prior results using a different dependent variable, dropout status. Data in the sample from the NELS: 88 study included 17,613 students representing all three racial groups (2,010 Black, 2,445 Hispanic, and 13,158 White). Overall, the authors found less overlap between predictors in this second study than in their first. Significant predictors of dropout still existed across groups and included number of suspensions and being held back a grade. The authors suggested that future research still needs to be conducted within separate groups in order to study the unique causes and effects of achievements gaps within each group.

Dai, D. Y. (2013). Excellence at the cost of social justice? Negotiating and balancing priorities in gifted education. *Roeper Review*, *35*, 93–101.

This article discussed the excellence and equity issue in the field of gifted education. The author provided three cases illustrating the problem of excellence and equity, and gave recommendations to address this issue. The cases discussed included the (a) U.S. Supreme Court Affirmative action cases from 2013, (b) the New York City admission policy for gifted elementary school in 2012, and (c) detracting for high-student achievement. To address the underrepresentation of some minority groups in gifted education, educators should focus on long-term strategies such as rewarding excellence rather than "giftedness." In addition, the identification process should put less emphasis on intelligence tests as being the sole basis of assessment. In fact, the process should

be more authentic by including a diverse range of assessments. The identification process should also take into consideration demonstrated excellence and potential excellence. Once individuals have been identified, teachers need to follow scientifically credible theories of child development, as well as use evidence-based practices. There are some curricula for the gifted available and teachers should use them. A good balance between maximal participation and rigorous standards can be address the issue of underrepresentation and honor gifted students.

Gentry, M. (2006). No Child Left Behind: Neglecting excellence. *Roeper Review, 29*, 24–27.

In this article, the author discussed the effects of No Child Left Behind (NCLB) on gifted education. She explained how high-stakes tests are denying the new generation of children quality education. In fact, teachers are focusing on proficiency rather than excellence. They are making sure to increase the proficiency of low-achieving students and hence teaching only the content of the test. This leaves little to no room for imagination, creativity, critical thinking, and problem solving. This style of teaching to the test yields scores of questionable validity and reliability. NCLB has also affected the way teachers think about their students. Teachers are required to have diverse students with different needs meet the same standards, which removes the accountability of variation among the students. This situation has backfired through an increase rate of dropouts because students' needs are not being met in the public sector. Many alternatives such as charter schools are becoming the escape route for these students, as well as for teachers who are interested in teaching quality education to meet the needs of diverse students. These circumstances create fear among teachers in differentiating their curriculum and instruction and have increased their paperwork. The author suggests that statistics on the conditions of schools have been manipulated and do not represent reality. All in all, NCLB has pushed teachers to focus on testing rather than quality education. Gifted students are the most affected by this situation. NCLB should shift from a proficiency perspective to a focus on strengths, interests, and talents. This change in perspective will meet the needs of diverse students, raise the quality of education, and fund programs that will benefit gifted students. Parents and educators need to encourage the change in law so that individual children reach their fullest potential.

Hallett, R. E., & Venegas, K. M. (2011). Is increased access enough? Advanced Placement courses, quality and success in low-income urban schools. *Journal for the Education of the Gifted*, *34*, 468–487.

This mixed-methods study focused on examining the value and quality of Advanced Placement (AP) courses and their effect on students' performance on the end-of-course national exams. The participants were 48 college-bound students who met the federal requirements for the federal Free/Reduced Lunch Program. The participants were 60% females, 60% Latino, and 25% African American. They all were enrolled in a summer writing program that assists students from low-income urban high schools in the transition to college and university settings. All participants were observed and interviewed about their experience in AP courses. The results of the study showed that students from low-income and minority backgrounds took AP courses when given the opportunity. While the students received high grades from their AP teachers, they were two full grades lower on the end-of-course AP national exam. In fact, on average students received a score of 4.31 from their teachers, and an average score of 2.42 on the national exam. This showed that the course and exam assessments were distinctly different. The interviews with the students revealed that teachers were unprepared or unmotivated to teach the classes. In addition, the materials covered in the class did not match the exam content. In fact, the content studied in AP classes was at a lower level than the content of the AP national exam. Students also shared their difficulties in navigating the school system, the need to go against the administration and counselors to have AP courses offered, and the large amount of individual study time to pass their classes. According to the authors, their findings highlight that the problem resides in the educational institutions and bureaucratic operations. In fact, there seems to be a lack of advocacy at the student level. On the surface level, increased AP courses are being offered to students from low-income and minority backgrounds; however, there is a need to improve the quality and content of the courses. Further research in this area is necessary.

Hargrove, K. (2008). From the classroom: Meeting social and emotional needs in the days of high-stakes testing. *Gifted Child Today, 31*(3), 45–46.

The author observed that high-stakes testing and rigorous standards in education have led to classrooms where drill and kill, scripted instruction, and limited time for enrichment and extension are the norm. In the author's graduate-level course, students were required to write and implement a unit of lessons focused on meeting the social and emotional needs of gifted students that were related to Texas Essential Knowledge and Skills (TEKS) state standards. Discussion board responses were made to the question: Can you actually use, or do you think you can use, any of the guidance activities you or your colleagues have developed in your classroom? The resounding response to this inquiry was yes. Students commented that it

would require traditional teachers to step outside of their comfort zone and the prescribed curriculum, that teachers would need to think more about the affective needs of students rather than focusing solely on academics, and that gifted students need advocates willing to teach the "whole" person.

Hill, K. D. (2013). Reclaiming students' voices: Fourth graders' discussion of the great migration in a climate of paced curriculum. *Journal of Advanced Academics, 24*, 141–163.

The introduction of strict standards and the high-stakes testing movement has resulted in teachers being pressured to implement instructional strategies that compromise their pedagogical beliefs through the introduction of mandated pacing guides and exclusive use of curriculum literature in many school districts that provide little to no meaningful literary experiences for learning. This particular study was conducted in a high-poverty, high-minority fourth grade classroom in Detroit, MI. The classroom teacher, Leslie, closely followed the paced curriculum but also sought to supplement her English language arts block with opportunities for peer-led discussion, collaboration, and deeper construction of meaning through the use of culturally relatable texts. Strategies used include the Book Club curriculum in which students react to and interact with literature through reading, writing, listening, and speaking. Embedded within the Book Club framework was the use of cognitive strategy instruction that included making connections, predicting, summarizing, questioning, clarifying, and inferring about texts. Research questions guiding this study were: (a) How do a researcher and a fourth-grade teacher supplement existing curriculum materials and the pacing guide to facilitate variations of the Book Club curriculum? (b) How do students respond to participating in variations of Book Club that engender varying participation discourses and cognitive strategy instruction (CSI)? (c) How do students respond to exploring their cultural and historical heritage? Observations of the 25-student classroom were conducted one day per week over a 2-month period. Qualitative data sources included audiotapes and transcriptions of peer-led discussions, field notes, and student reading logs. Themes emerged from systematic data reduction and analysis and included the need for collaboration during integration of the Book Club curriculum and the importance of collaboration and modeling for students. Suggestions as a result of the data collected in this study included that meaningful and authentic learning will only occur when teachers go beyond the required curriculum and that teachers should be given the time, flexibility, and autonomy to supplement prescribed curriculum to meet the individual needs of their students.

Kaplan, S. N. (2014). Advocacy: Emphasizing the uncommon about the Common Core State standards. *Gifted Child Today, 37*(2), 126–127.

This article addressed key pedagogical and philosophical concerns with the implementation of the Common Core State Standards (CCSS). The author discussed three key issues raised about CCSS. These assumptions included the notions that (a) gifted students will fare well under the "new core" standards, (b) many CCSS have already been mastered by gifted students as evidenced by their performance on assessments of giftedness, and (c) skill sets within the CCSS are integral features of differentiated curriculum for gifted learners. Philosophically, the author reminded the readers that standards included in the CCSS should not be expected to be mastered at specific grade levels; rather, gifted students should gain new insights and transfers skills between subjects as they align with his or her aptitudes and interests. Along the same lines, gifted students should be evaluated before implementation of the CCSS to determine their developmental readiness for different standards. Pedagogically, the author stressed the need for teachers and administrators to decide which is a priority—CCSS or curriculum specifically designed for use with gifted students. She stressed the need for gifted and talented instruction to remain based in inquiry and discovery rather than moving to a purely teacher-directed model.

Kettler, T. (2007). An administrator's perspective: Gifted education left behind and run over. *Gifted Child Today, 30*(4), 42–43.

The author of this article offered a commentary in reaction to a the February 2007 issue of *The School Administrator* that bore the theme, "Gifted Education, Left Behind," specifically an article written by Eric Smith entitled, "Weaving the Gifted Into the Full Fabric." In his discussion of discrete gifted classrooms versus integrated learning, Smith presented what he considered a basic truth, that "what's good for some is good for all." In his analysis of this statement, the author found that he disagreed with this notion and instead sided with research-supported differentiation meeting the individual needs of students of varying intellectual abilities. The author briefly discussed a contradictory method of schooling called "Success for All" in which students were leveled based on ability. Studies related to "Success for All" found that what is good for some is not necessarily good for all. In his article, Smith denounced identification and grouping practices and called for a fully integrated program where gifted education becomes indiscernible from general education. The author rebutted both of these arguments as well and closed his column by urging the field of gifted education not to disappear into the fabric of the system but instead continue with its commitment to indi-

vidual differences and creating environments where gifted learners can thrive while having their needs fully met.

Mendoza, C. (2006). Inside today's classrooms: Teacher voices on No Child Left Behind and the education of gifted children. *Roeper Review, 29*, 28–32.

This article offered insights into the practices that have been occurring since the passage of No Child Left Behind (NCLB). The author sent a series of questions to 10 teachers in four districts in Colorado. Teaching assignments varied, including gifted resources teachers, International Baccalaureate teachers, and foreign language teachers. The questions focused on getting teachers' perspectives of the overall effect of NCLB on the district, school, and classes. Teachers reported the fear that their current students will receive lower scores than those reported previously; hence a large amount of their effort is focused on proficiency. According to the teachers' estimates, on average 24% of instructional attention is targeting children who score unsatisfactory, 30% on those who scores partially proficient, 26% for those scoring proficient, and 11% for advanced children. The teachers also reported the need for professional development in the area of gifted education. In fact, none of the districts included in the study had mandates for professional development in gifted education. The teachers recommended experience with gifted learners should be provided at the preservice level. This little amount of preparation leads to a high turnover. Around 50% of teachers leave the profession in the first 5 years. This high-stakes testing situation evokes high stress in teachers and students. Although the teachers reported these problems and wish for a better situation, the majority indicated that they were not sure how to address legislators. When asked for their opinion about the future of the field of gifted education, 50% reported a negative perspective, that the field will get worse and the needs of less gifted students will be met. Among the rest, 30% said that the situation will remain the same as it is today, and 20% had positive views and said gifted children's needs will be met. Regardless whose perspective is taken into consideration, the reality shows that there is a need for attention towards gifted children.

Moon, T. R. (2009). Myth 16: High-stakes tests are synonymous with rigor and difficulty. *Gifted Child Quarterly, 53*, 277–279.

In this article, the author discussed the myth that high-stakes testing is equivalent to rigorous and difficult curriculum. The article began by discussing the history of high-stakes

testing in the United States beginning with assessments in the 1840s in Boston to monitor school effectiveness, Alpha Testing during WWI, NAEP and ESEA in the 1960s, and minimum competency testing in the 1970s and 1980s, culminating with No Child Left Behind (NCLB). The introduction of testing under NCLB marked a shift from minimum competency to high expectations for all students. The author proposed that using high-stakes testing for accountability as well as the assessment of learning poses four problems: (a) the narrowing of curriculum and instruction into decontextualized skills, (b) unethical test preparation practices, (c) inappropriate use of scores, and (d) the potential for decreased motivation to learn in students. As a result of the implementation of high-stakes testing the author stated that education has adopted a "default" philosophy where tests drive curriculum and limit innovation in instruction. Advocates for effective education should consider alternatives to the current system of assessment and instructional delivery including becoming strong voices for a balanced system of assessment for learning and accountability and advocating for flexible grouping options that accommodate for the varying needs of learners.

Peters, S. J., & Mann, R. L. (2009). Getting ahead: Current secondary and postsecondary acceleration options for high-ability students in Indiana. *Journal of Advanced Academics*, *20*, 630–657. doi:10.1177/1932202X0902000404

This survey of Indiana high schools' participation in postsecondary programming sought to explore the varying models being used in the state including Advanced Placement (AP), International Baccalaureate (IB), and Dual Enrollment/Dual Credit models. The research questions guiding the study were: (a) How prevalent are dual-credit and IB offerings in Indiana schools?; (b) How well do the offerings in Indiana match what is suggested in the research for secondary student high-ability programming?; (c) What, if any, barriers exist that prevent students from taking full advantage of dual-credit and IB programs? A 15-question survey composed of both fixed response (n = 9) and open-ended (n = 6) questions was sent electronically and, if needed, in paper form to each public school corporation (n = 299) in the state of Indiana. A total of 260 responses were received, which was a response rate of 87%. The results revealed that all but 20 districts offered some form of high-ability programming, the absence of which indicated noncompliance with state mandates requiring such programming. Of the schools with acceleration options, 70% (n = 182) cited offering AP courses while only 3% offered IB options. The remainder of acceleration models included honors or advances classes, dual credit, early graduation, and clubs, competitions, or other enrichment. In the discussion of these results, the authors pointed out that 70% (n = 182) of districts had prerequisite requirements for participation in advanced programming. The most common prerequisites were grades, standardized test scores, and completed coursework. The authors argued that if participation in advanced programming was contingent upon high levels of performance that traditionally underserved populations may have limited access to these services. Suggested changes in high-ability programming offered by the authors included: (a) expanding eligibility requirements, (b) creating additional concurrent enrollment sequences to offer a larger number of accelerated classes, and (c) expanding outreach to include traditionally underserved populations.

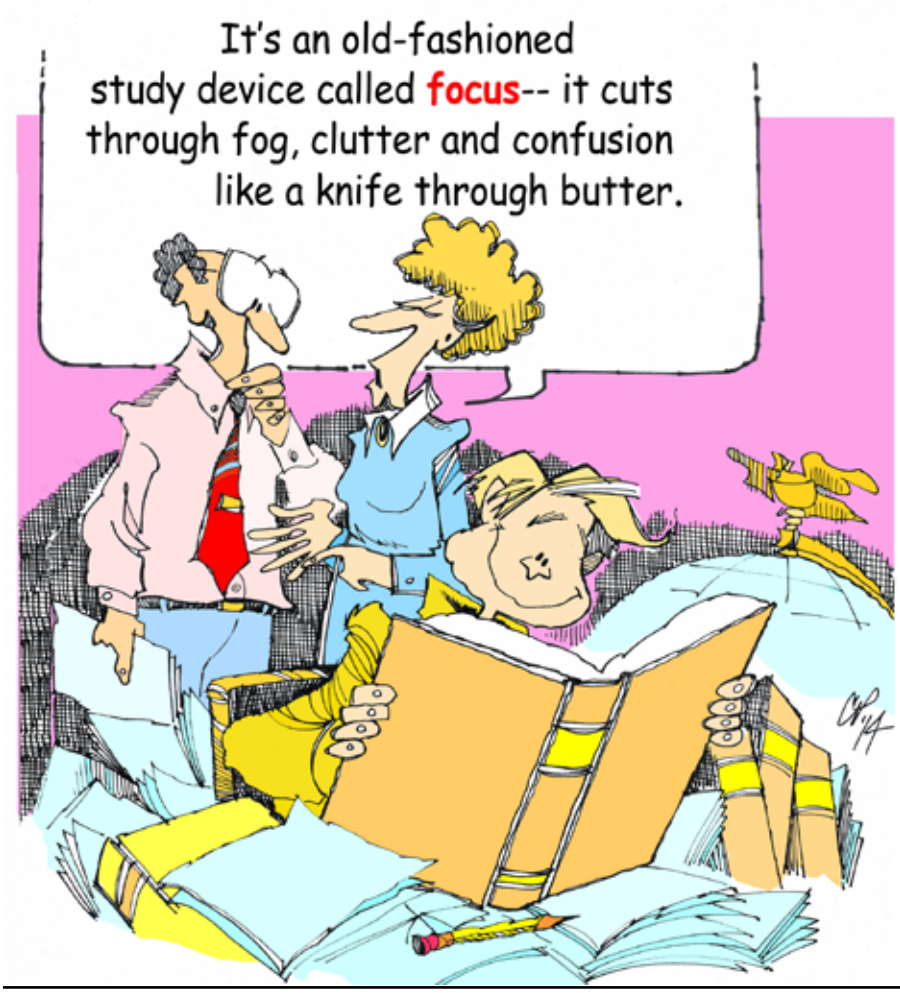
Pierce, R. L., Cassady, J. C., Adams, C. M., Speirs Neumeister, K. L., Dixon, F. A., & Cross, T. L. (2001). The effects of cluster and curriculum on the development of gifted learners' math achievement. *Journal for the Education of the Gifted*, *34*, 569–594.

This qualitative study examined the impact of cluster grouping on math development for gifted students at urban elementary schools. The study looked at data from 2 years in a 6-year project promoting gifted services in an urban school district. For the first year, the researchers examined 23 cluster classrooms and 7 non-cluster classrooms. From those, 14 cluster classrooms were determined to have teachers who were implementing the program according to criteria, 9 cluster classroom with non-implementers, 3 non-cluster classrooms with implementers, and 4 non-clustered classrooms with non-implementers. The study examined a total of 161 gifted students, with 30% White, 33% African American, and 28% Hispanic. For the second year, comparisons were only made between 17 cluster classrooms, and 9 non-cluster classrooms. This included 127 gifted students with 43% White, 32% African American and 15% Hispanic. Pre- and post-tests were administered to students in a 9-week span of instruction. The findings showed that students in cluster classrooms made significant gains when compared to student in non-cluster classrooms, even though they both started at the same point. Although gifted students in both conditions showed positive growth, those who were in the cluster classrooms showed stronger gains than those who were in non-cluster classrooms. In addition, students who were not identified as gifted showed larger gains in cluster classrooms than in non-cluster classrooms. Within the cluster classrooms, those who had teachers identified as implementers demonstrated a greater gain than those who had non-implementer teachers. The findings of the study demonstrated the benefit of gifted services; however, benefits to all students are stronger when the curriculum is implemented faithfully.

Teachers who delivered the curriculum as designed demonstrated significant gains in student mastery of content. The authors suggested that teachers need extensive support in lesson development. In fact, quality instruction is crucial to meeting the needs of all students. The study included some limitations such as student mobility and inability to randomly assign all conditions. The authors suggested further research in the area of curriculum fidelity implementation.

Rakow, S. R. (2008). Standards-based vs. standards-embedded curriculum: Not just semantics! *Gifted Child Today, 31*(1), 43–49.

The author of this article described the benefits and drawbacks of teaching in the age of accountability as well as the differences between standards-based teaching and standards-embedded teaching. No Child Left Behind (NCLB), high-stakes testing, and a focus on standards have forced educational stakeholders to ask themselves several beneficial questions regarding today's classroom including: Are students learning? What are students learning? How do we know they've learned it? These questions have led to the introduction of high-stakes testing, which often results in gifted achievement going unrecognized due to ceiling effects, an overload of standards leading to a lack of rich and relevant learning, and a system in which the test is becoming the curriculum in many classrooms. Overemphasis on testing and grade-level standards often limits the learning of gifted and talented students who benefit from differentiated instruction that is relevant, engaging, challenging, and complex. The specific curriculum models discussed in this article were the standards-based curriculum model, which is driven by instruction and assessment over individual standards, and the standards-embedded model, which involves backwards planning—beginning with broad questions and fitting standards



from multiple disciplines into instructional decision making. Differences in the two models included the starting point, preassessment, opportunities for acceleration and enrichment, instruction, teacher's role, and student self-esteem and pride in learning. In her conclusion, the author stressed the importance of adequate planning time and the collaboration of teams of teachers in order for standards-embedded models to be effective.

Ryser, G. R., & Rambo-Hernandez, K. E. (2014). Using growth models to measure school performance: Implications for gifted learners. *Gifted Child Today, 37*(1), 17–23.

The current focus on high-stakes testing has led to an accountability movement in American education. Assessment data and growth modeling are used to measure student academic growth and to show adequate yearly progress (AYP). The problem with most growth models being used is that they are designed for measuring proficiency in typically developing children, not gifted learners. The author discussed the introduction of the No Child Left Behind Growth Model Pilot Program (GMPP) in 2001, which used status models to demonstrate AYP. These models looked at a school's overall level of student proficiency at one point in time but failed to recognize improvement in individual scores. In 2005, the GMPP was modified to include multiple growth models including transition models, trajectory models, and projection models. Current growth model practices are expanding to include more than just proficiency measures. Interpretations of growth models now included growth description (magnitude of

growth), growth prediction (future scores), and value-added (causes of growth). The authors stressed that different growth models answer different questions so no single model gives "best results." More statistically sound growth models are needed to accurately assess gifted students. Criteria for statistically sound growth models are: (a) must be based on at least three observations or test scores, (b) test scores should be comparable across time, and (c) measures of time must be collected for every test administration. Implications of using growth modeling for gifted learners include awareness that: (a) assessments intended to measure proficiency in typically developing students will contain error when used with gifted students, (b) ceiling effects, and (c) regression to the mean. The authors suggested the use of above-level and computer-adaptive testing options for gifted learners.

Swanson, J. D. (2007). Policy and practice: A case study of gifted education policy implementation. *Journal for the Education of the Gifted*, *31*, 131–164.

This case study examined the development, evolution, and implementation of gifted education policy in South Carolina (SC) from 1984 to 2004. The study used a conceptual framework to represent the situation in SC from three perspectives: policy makers, linkers, and adopters. Policy makers (n = 5) represented those who developed statutes, regulation, and policy; linkers (n = 19) were district personnel who implemented policy in school district; and adopters (n = 26) represented those who were responsible to implement the policy at the school and classroom level (i.e., gifted education coordinators, principals, gifted education teachers, and regular education teachers). Data were collected through individual interviews with policy makers, focus group interviews with linkers and adopters, and a review of documents from 1984 and 2004. Throughout this period, two reform movements took place: the 1980s Education Improvement Act (EIA) that focused on basic skills, and the 1990s standards movement centered around accountability and standards-based curriculum, instruction, and assessment. In fact, part of the basic-skill movement included the mandate for gifted education. In addition, attention was given to identification and services for minority gifted students. This movement helped gifted education become more connected to general education. In fact, making sure that gifted students were moving beyond standards was considered crucial by linkers and adopters. In addition, differentiation within the general education classroom was widely used. During this 20-year period, funding for gifted education increased as did the number of identified students. However, linkers mentioned the lack of sufficient funding to offer high-quality programs. The findings of the study showed that the main focus was on identification of students and access for underrepresented gifted students. There seems to be a current shift in establishing teacher development to improve curriculum instruction and services for gifted minority and low-income students. Although the results reported in this case study cannot be generalized, the author suggested that collaboration, time, and resources are crucial in developing strong policy.

Swanson, J. D., & Lord, E. W. (2013). Harnessing and guiding the power of policy: Examples from one state's experiences. *Journal for the Education of the Gifted*, *36*, 198–219.

The authors of this article discussed the conceptual aspect of policy using a framework for four interrelated components: identification; program curriculum and services; personal preparation; and program management, assessment, and evaluation. They linked the National Association for Gifted Children (NAGC) State Policy Task Force to case studies of gifted education policy in South Carolina to demonstrate how state policy development can be influenced or guided. The development of legislation and rules supporting gifted students was influenced by policy makers, business and gifted education leaders, and district-level-coordinators, their influence resulted in the inclusion of a mandate for gifted education in the passage of the Education Improvement Act of 1984 (EIA). The four main components of the policy were developed throughout a span of 15 years. Changes in definition and screening processes demonstrated a more inclusive identification component of the policy. In the program component, curriculum expanded to not only provide enrichment and advancement placement, but to also include special schools and classes for domain-specific learning opportunities. In addition, services shifted toward inclusive settings where support is given though guidance and counseling. The personal preparation component of the policy showed the greatest change. At first there were no requirements, but the change required regional groups for professional networking and development. Regarding the management, assessment, and evaluation components, policy shifted to requiring a 3-year plan for gifted programming as well as an annual update. Efforts in improving gifted education in South Carolina have shown benefits in three distinct areas. First, the level of state funding has remained flat. In fact, South Carolina has not lost or gained funding. Second, teachers are continuously seeking professional development opportunities. Third, the state continues to fund graduate gifted education at various higher education institutions. Furthermore, it is crucial to understand that there are key players in the development of policy in South Carolina and that educators at all levels have the ability to shape policy. Policy

development is continuously evolving and requires frequent revision.

Weber, C. L., Boswell, C., & Smith, D. (2008). Different paths to accountability: Defining rigorous outcomes for gifted learners. *Gifted Child Today, 31*(1), 54–65.

This article described the process followed by the states of Texas and Florida in their pursuit of gifted and talented curricular reform. Both states sought to find a method for providing teachers of gifted students with the tools needed to ensure rigor in gifted curriculum and instruction. Texas began by reviewing its state goals for gifted education and the Texas Performance Standards Project (TPSP), projects designed for gifted students aligned with content standards in English language arts, mathematics, science, and social studies that culminate in the creation of high-end professional quality products. The TPSP alone lacked direction and specifics needed by teachers in the gifted classroom so a committee was created to develop a formal scope and sequence for gifted education in the state of Texas. This committee's efforts resulted in the creation of the *Gifted and Talented Teacher Toolkit* and the *Gifted and Talented Teacher Toolkit II*, a collection of resources for districts and individual teachers to use in program planning and instruction. In Florida, the curriculum reform process began in response to results of the Florida Comprehensive Assessment Test (FCAT) as well as the introduction of State Rule 6A-6.030191 which provided guidelines for the development for an Education Plan (EP) for students who are gifted. Previously, Florida established a statewide initiative introducing teachers to Tomlinson's Parallel Curriculum Model but found inconsistencies in implementation. A task force was formed to establish a state curriculum based on several state documents–*GAGE: Greater Accountability on Gifted Education*, *Blueprint: Organizing for Results*, and *Aiming for Excellence: Gifted Program Standards*. The result of their efforts was a document called *Florida's Frameworks for K–12 Gifted Learners* that provided specific guidelines to support a challenging and rigorous gifted curriculum.

Yara N. Farah is a doctoral student in the Department of Educational Psychology at Baylor University. Her research interests related to gifted education, mathematics enrichment in inclusive classrooms, and twice-exceptional students.

Kimberly A. Hardin is a doctoral student in the Department of Educational Psychology at Baylor University. Her research interests include gifted education, adult learning, teacher preparation, and professional development.

Susan K. Johnsen, Ph.D., is professor in the Department of Educational Psychology at Baylor University where she directs the Ph.D. program and programs related to gifted and talented education. She is the author of more than 200 publications including *Identifying Gifted Students: A Practical Guide*, books related to implementing the national teacher preparation standards in gifted education, tests used in identifying gifted students, and is editor-in-chief of *Gifted Child Today*. She serves on the Board of Examiners of the Council for the Accreditation of Educator Certification and is a reviewer and auditor of programs in gifted education. She is past president of The Association for the Gifted (TAG), Council for Exceptional Children, and past president of the Texas Association for the Gifted and Talented (TAGT). She may be reached at Department of Educational Psychology, Baylor University, One Bear Place #97301, Waco, TX 76798 or Susan_Johnsen@baylor.edu/

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Nicole Shannon is the Coordinator of Gifted/Advanced Academic Services for Round Rock ISD. She also serves as the Publications Officer for the TAGT Leadership Division. She has more than 18 years of experience in gifted education as a teacher, curriculum coordinator, private school principal, and district program coordinator. She has presented to preservice and in-service teachers, counselors, administrators, and parents on a variety of topics in gifted education throughout her years in this field. Ms. Shannon graduated with a BS in applied learning and development from the University of Texas at Austin. She is currently completing her M.Ed. in teacher leadership with a specialization in gifted/talented at Lamar University. She can be reached at Round Rock ISD, Department of Gifted/Advanced Academic Services, 1311 Round Rock Ave., Round Rock, TX 78681 or at nicole_shannon@roundrockisd.org.