

EVIDENCE-BASED PRACTICES IN GIFTED EDUCATION

ACCELERATION, ABILITY GROUPING, AND UNIVERSAL SCREENING

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The existence of research-to-practice gaps is not uncommon. Most professional fields are characterized by the need to implement practices driven by new state or district policies and regulations that may exceed the current empirical research base. Some of these implemented practices may be based on their wide usage in other school districts and educators' assumptions that they are effective rather than by any formal research studies. Other implemented practices may be emerging and based on teachers' classroom experiences validated through their work with students but not by any formal action research studies. In some cases, practices may have been implemented because of their promotion by pro-

fessional developers or others who might benefit by their implementation.

The actual implementation of evidence-based practices is often limited and may be observed in only a few school districts, a few teachers' classrooms or, perhaps, not at all. The degree of implementation of evidence-based practices may be influenced by (a) their incompatibility with current practices or educator beliefs, (b) a lack of human and material resources within a particular school or school district, (c) the complexity of the change process, and/or (d) administrators who may lack the practical knowledge about how to implement them. In this article, we will focus on the research and practical knowledge needed

by administrators to increase implementation of three evidence-based practices in gifted education: acceleration, grouping, and universal screening.

WHAT ARE EVIDENCE-BASED PRACTICES?

Best practices, research-based practices, and evidence-based practices are often confused with one another but relate to the amount and quality of the research base supporting the practice. For example, *best practices* are generally those recommended by others but are based more on anecdotal evidence or professional judgment

rather than data to support their effectiveness. *Research-based practices* refer to educational approaches that are supported by a broader range of research designs and demonstrate a record of success for improving student outcomes but have not yet undergone a systematic review process. *Evidence-based practices* are supported by rigorous research designs and demonstrate they improve student outcomes. These practices have also gone through a systematic review process using quality indicators to evaluate the level of the evidence.

Evidence-based practices are defined within the Every Student Succeeds Act [ESSA], United States Congress, 2015 (from section 810[21][A]). ESSA delineated “evidence-based” actions according to four categories reflecting the strength of the

evidence (see Table 1). These categories include (a) *strong evidence* supported by one or more well-designed and well-implemented randomized control experimental studies (Tier 1), (b) *moderate evidence* supported by one or more well-designed and well-implemented quasi-experimental studies (Tier 2), (c) *promising evidence* supported by one or more well-designed and well-implemented correlational studies with statistical controls for selection bias (Tier 3), and (d) *demonstrates a rationale*, which are practices that have a well-defined logic model or conceptual framework that identifies key components of the proposed process, product, strategy, or practice, and describes

education that would meet the ESSA criteria for strong evidence: acceleration and grouping. The other practice, universal screening, which is a relatively new practice in gifted education, would most likely meet the ESSA criteria for moderate evidence.

ACCELERATION

NAGC (2004) defined acceleration as a practice that “allows a student to move through traditional educational organizations more rapidly, based on readiness and motivation” (para. 2). Acceleration is based on three principles (Brody & Stanley, 2005): learning is sequential and developmental, children learn at different rates, and effective teaching involves a match between an individual child’s readiness to learn and the level of content presented. Southern and Jones (2015) have identified more than 20 forms of acceleration that have been categorized into content-based and grade-based (Rogers, 2007, 2015). Content-based acceleration is when students receive curriculum at an accelerated pace within the same age or grade placement for most of the school day but may receive higher grade-level instruction within their own class or in an advanced grade. For example, a first-grade student may go to a fourth-grade classroom to receive more advanced concepts in math but remain with their same-age peers for other subjects. Grade-based acceleration is when students are placed in classes with older students and/or spend less time in the K–12 system. Examples relate to early entrance at the kindergarten or secondary levels, grade skipping, or accelerated pathways where high school students are able to telescope 4 years into 3.

EVIDENCE

Researchers have examined the effects of acceleration for more than 100 years. At least 125 studies have been published since 1918 involving

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the relationship among the key components and outcomes, theoretically and operationally; are informed by research or evaluation; and have some effort underway by a State Education Agency, Local Education Agency, or outside research organization to determine their effectiveness in improving student outcomes or other relevant outcomes (Tier 4). Schools that receive funds for programs described in Titles I, II, and IV of the Elementary and Secondary Education Act must use evidence-based practices in the top three tiers. Education leaders in low-performing schools must also include evidence-based practices in their improvement plans beginning in the 2018–2019 school year (Garcia & Davis, 2019; U. S. Department of Education, 2016).

There are two practices in gifted

TABLE 1.
Criteria for Tiers of Evidence-Based Research

Tier Criterion	Tier I Strong Evidence	Tier II Moderate Evidence	Tier III Promising Evidence	Tier IV Demonstrates a Rationale
Study design	Well-designed experimental study with randomized groups participating in the intervention compared to those who don't participate	Well-designed quasi-experimental study with assigned groups participating in the intervention compared to those who don't participate	Well-designed correlational studies that examine the relationships between different variables (e.g., achievement and the classroom practice)	A logic model or conceptual framework based on high-quality of research or evaluation
Statistical significance	Shows a statistically significant difference on student outcomes without negative effects			Relevant research suggests the intervention is likely to improve student outcomes
Sample characteristics	Large and multisite study and characteristics are similar to your school district	Large and multisite study OR characteristics are similar to your school district	Statistical controls are used for selection bias.	Not applicable

Note. Adapted from Garcia and Davis (2019) and the U.S. Department of Education (2016).

75,582 participants (Steenbergen-Hu, Makel, & Olszewski-Kubilius, 2016). The overall effects on K–12 students' academic achievement have been positive and statistically significant when comparing accelerated students with their nonaccelerated same-age peers. These studies have been examined further using meta-analysis, which analyzes common outcomes across studies. For example, Kulik and Kulik (1984) examined 26 studies focused on grade skipping, curricular compacting, and adding a summer session to school. Results indicated that academic performance of accelerated students exceeded the performance of their same age and intelligence peers who were not accelerated by almost one academic year. Rogers (1991) extended Kulik and Kulik's study by adding early entrance to school, Advanced Placement, concurrent enrollment, and mentorship. These acceleration options also resulted in academic gains. Finally, Steenbergen-Hu et al. (2016) reviewed

6 acceleration meta-analyses that included 125 unique primary studies. Their study concluded that accelerated students significantly outperformed their nonaccelerated same-age peers, and acceleration positively impacted students' academic achievement.

Despite educator concerns, research indicates acceleration does not have negative effects on most students' emotional and social well-being (Assouline, Colangelo, VanTassel-Baska, & Lupkowski-Shoplik, 2015; Colangelo, Assouline, & Gross, 2004). In fact, high-ability learners seem to like school more and be more advanced in social interactions than do high-ability students in traditional classes who are not accelerated (Anderson & Pavan, 1993; Lloyd, 1999). In the intrapersonal area, Richardson and Benbow (1990) reported no differences in self-acceptance of accelerated and nonaccelerated academically talented students. There are also no differences in general self-concept between accelerated stu-

dents and their nonaccelerated peers (Hoogeveen, van Hell, & Verhoeven, 2009; Plucker & Taylor, 1998). In the social or interpersonal area, Rogers (1992) noted early entrance to kindergarten had a positive effect on social and emotional indices. Accelerated students tended to be more socially mature, popular, and involved in extracurricular activities (Gross, 1994; Richardson & Benbow, 1990; Swiatek & Benbow, 1991). In a meta-analysis of 38 studies on acceleration between 1984 and 2008, Steenbergen-Hu and Moon (2011) found a statistically significant, small positive effect on social-emotional measures comparing accelerated to nonaccelerated same-age peers. In another meta-analytic study, Rogers (2015) found similar results. She reviewed studies published between 1990 and 2013 examining various forms of acceleration and concluded that grade-based acceleration has "positive socialization and psychological effects at all three school levels" (p. 25).

PRACTICAL CONSIDERATIONS

To implement acceleration, administrators must consider acceleration guidelines, referrals, screening and selection procedures, placement and transition plans, monitoring of student transitions to more accelerated settings, and evaluation.

Establish guidelines. The first administrative consideration is to establish guidelines for determining who is a good candidate for acceleration. These guidelines should be communicated to both staff and parents. Acceleration should be open to all students, regardless of gender, race, ethnicity, disability status, socioeconomic status, English language proficiency, or school building attended.

Create a referral process. Referral for acceleration is a separate process from referral to a school's gifted program. The referral process should be open to many sources so that one person does not serve as the gatekeeper. Administrators need to develop a specific referral form, establish procedures and a timeline, and communicate the referral process to staff and parents.

Apply equitable and systematic screening and selection procedures. The screening procedure should be applied equitably and systematically to all referred students. Assessment should be fair, objective, and systematic, using instruments aligned to the type of acceleration being considered for the student (e.g., above-level math assessments for single-subject acceleration in math). The district should take care to ensure that assessment instruments are reliable, minimize bias, and are valid for measuring those factors related to success with acceleration and not other factors. For example, when assessing English learners, instruments should be in the student's heritage language. Multiple data sources should also be used in the assessment process. These

might include on-level and out-of-level achievement tests, informal/classroom assessments, student work samples, grades, teacher checklists/recommendations, and assessments of the student's maturity and desire for accelerated placement. Ideally, when considering grade-based acceleration, the student should be assessed in the spring, and, if recommended, participate in appropriate transition activities prior to placement in the advanced grade or content area at the beginning of the next school year.

Develop an evaluation team.

A child study/evaluation team should consider cases of acceleration. Decisions should not be made by one or two individuals. An ideal team should include at least one person who is familiar with the research and best practices of gifted education and acceleration. It should also include a representative with expertise in language acquisition and culture of the student when the student is an English learner, and a representative with expertise in special education when the student is twice-exceptional. In addition to these individuals, the evaluation team for *content-based acceleration* might include an administrator, the current content area teacher, the receiving teacher for the content area, the parent/guardian(s), the student, and possibly a school counselor/school psychologist who will assist with initial adjustment issues. *Grade-based acceleration* teams should also include the receiving teacher(s) and an administrator and counselor from the receiving grade level/campus. The evaluation results should be communicated in writing to the parents/guardians of the student and parents/guardians should be given an opportunity to appeal the outcome of the evaluation process. Procedures for appealing decisions and the time limitations on starting an appeal should be specified. The appeals process typically provides an

opportunity to raise concerns or provide additional information.

Create written placement and transition plans. The evaluation team should create a written placement and transition plan for students selected for whole-grade acceleration or acceleration in an individual subject area. The written plan should detail the type of acceleration the student will receive, how differentiation will be provided, and the strategies to be used to support the student. It should also identify strategies to facilitate a successful transition to the accelerated setting during the transition period specified in the written plan. Any accommodations or modifications the student is entitled to receive under an IEP or 504 plan must also be available in the accelerated setting, so these must be included in the plan as well.

The timing for acceleration should minimize disruption for the student and maximize chances for success. The plan should also provide guidance regarding how the accelerated student's transition will be monitored and by whom. In developing the plan, consideration should be given to the impact whole grade acceleration may have on future coursework and long-term academic planning such as (a) requirements and procedures for earning high school credit prior to entering high school, (b) how students might complete graduation requirements on an accelerated basis, (c) what district prerequisite requirements for enrolling in advanced courses might need to be waived, and (d) whether district graduation requirements that exceed those required by the state might need to be amended. Other issues, such as determining class rank, should also be considered. Immediate and long-term logistics of the acceleration may also need to be considered when a student is accelerated in a content area. Transportation to and from the receiving campus should be addressed, as well as access to college-level courses

when the student has accelerated through the district curriculum.

Ensure implementation of the plan. The acceleration evaluation committee should designate a school staff member to ensure successful implementation of the written acceleration plan and to monitor the adjustment of the student to the accelerated setting. Both the child's academic and socio-emotional adjustment must be considered. It is recommended that the supervising and receiving teacher(s) and any other relevant staff members engage with professional learning to develop their understanding of the learning and social and emotional needs of gifted students who have been accelerated. If at any time during the transition period, the placement is not successfully meeting the student's needs, alternate placements, if possible and reasonable, should be tried. The written plan should be modified, and a new transition period should be specified. During this time, the parent/guardian should be allowed to request in writing that the student be withdrawn from the accelerated placement. The student should be removed without repercussions. If the accelerated placement is successful during the transition period, it becomes permanent at the end of the transition period.

Evaluate the policy. The acceleration policy should include recommendations for how to evaluate the effectiveness of the policy and process to ensure students are successfully accelerated. A committee should be convened regularly to review success of the policy as well as unintentional barriers to the use of acceleration. The committee should address fidelity of the process for both content and grade-based acceleration.

GROUPING

Ability grouping involves placing students into different classrooms or in small groups based on their achieve-

ment levels, readiness, or abilities to create a more homogeneous learning environment so that teachers are better able to match the instruction to students' strengths and needs. These placements are not permanent and therefore do not assign students into tracks (i.e., advanced, general, vocational; Steenbergen-Hu et al., 2016).

Steenbergen-Hu et al. (2016) categorized ability grouping into four main types: between-class ability grouping, within-class ability grouping, cross-grade subject grouping, and pull-out or honors programs. *Between-class ability grouping* is assigning students within the same grade to high, average, or low classes based on their prior achievement or ability levels (Kulik & Kulik, 1987, 1992; Slavin, 1987, 1990, 1993). *Within-class ability grouping* or small-group instruction involves the teacher assigning students to small homogeneous groups based on the student's prior achievement or abili-

EVIDENCE

Steenbergen-Hu et al. (2016) reviewed 172 unique primary studies in 13 meta-analyses that were conducted from 1922 through 1994. In reviewing these meta-analyses, the researchers found negligible effects on K–12 students' achievement for any group (high, medium, and low) in the between-class ability grouping category. On the other hand, within-class ability grouping and cross-grade subject grouping had at least a small, positive, and significant impact on K–12 students' academic achievement across all ability groups. Special grouping for gifted students showed positive, moderate, and statistically significant effects on achievement. In summary, with the exception of between-class ability grouping, students who were grouped within their classrooms based on achievement, across different grades based on achievement, and in special groups with other gifted students showed significant achievement gains.

SPECIAL GROUPING FOR GIFTED STUDENTS SHOWED POSITIVE, MODERATE, AND STATISTICALLY SIGNIFICANT EFFECTS ON ACHIEVEMENT.

ties (Lou et al., 1996). Cluster grouping would fit within this category (Gentry, 2014). *Cross-grade subject grouping* involves grouping students from different grade levels together based on their prior achievement (e.g., the Joplin Plan; Floyd, 1954). The last category is *special grouping for gifted students* such as honors and pull-out programs that were designed specifically for gifted and talented students (Goldring, 1990; Kulik & Kulik, 1982, 1987, 1992).

In reviewing 12 *experimental* studies of ability grouping, the effects of between-class grouping on middle school and junior high students' academic achievement were positive, small, and statistically significant; within-class, cross-grade, and between-class grouping on elementary students' academic achievement was positive, moderate, and statistically significant. Steenbergen-Hu et al. (2016) concluded that students obtained small to moderate benefits

from between-class grouping, within-class grouping, and especially cross-grade subject grouping. Gifted students appear to benefit greatly by being placed in special groups or programs specifically designed for them.

PRACTICAL CONSIDERATIONS

To implement grouping, administrators must consider the types of grouping needed at each campus, the number of students who may need special classes, the strengths and needs of individual students for within-class and cross-grade subject grouping, professional learning for teachers, and a formal evaluation to determine fidelity of implementation and different grouping's effects on student outcomes.

Determine student need. Because grouping students should be based on student learning needs, the first course of action is to determine student needs at both the campus and classroom levels. To determine the need for special courses and/or cross-grade subject groupings, administrators need to consider district and campus level data such as standardized assessments, informal classroom assessments, and benchmark testing. Care should be taken to include above-level assessments because gifted students may have already learned the knowledge and skills of grade level or course standards. Above-level assessments will also be helpful in grouping students across grades.

Determine number of students. When reviewing the data, determine the number of students performing at the top levels who may need services above and beyond their current grade level or course. If there are a sufficient number of students, the campus may want to consider forming special classes, such as honors or gifted courses. Cross-grade subject group-

ing or within-class grouping may be considered with smaller numbers or if there are insufficient resources for special classes.

Look at individual students.

Campus and classroom data such as above-level assessments, benchmark data, unit pretests, and other classroom assessments may be used to determine strengths and needs for within-class and cross-grade subject grouping. Informal teacher observations might also be used to identify students with potential, rather than

GROUPING IS BASED ON SPECIFIC NEED, NOT ON BROAD GENERAL LEARNING ABILITY.

performance. For example, a student may be a good problem solver or learn concepts quickly but simply hasn't had the learning opportunities to master all of the knowledge and skills in a particular subject area. All within-class groupings should be flexible and specific to the instructional needs of the students. Based on assessment information preceding each unit of study, students may move in and out of groups as their needs change.

Consider scheduling. For cross-grade subject grouping, a specific subject area needs to be scheduled at the same time across classrooms. For example, math might be scheduled from 10:00–11:00 each day. Based on preassessment data for a particular strand in math such as mathematical operations, students would be in the class that would be addressing their strengths and needs and be grouped with like-ability peers. For example, some students might be in Teacher A's

class to study addition whereas others might be in Teacher B's class to study subtraction and so on. Multiple groups might be in the same teacher's classroom. At the end of the time period, students would return to their classroom and be with like-age peers. It is important to note that gifted students may be in different groups, depending on their various gifts and talents. Those who have strengths in math may be in an above-level math group but in an on-level reading group, and vice versa. Grouping is based on specific need, not on broad general learning ability.

This is especially true for twice-exceptional students and students from different language backgrounds who may need multiple types of services to address their strengths and needs.

Train teachers. It is also important to note that teachers should be provided with the training or should already possess the knowledge and skills to make grouping successful. Skills to be taught include creating a learning environment where students can work in small groups and independently, providing opportunities for faster pacing of new material, allowing students to demonstrate and receive credit for previous mastery of concepts, incorporating students' passionate interests into their independent studies, providing flexible grouping opportunities, creating differentiated learning activities within and between groups, teaching group and social skills, and monitoring student progress through student and teacher records (Johnsen, Ryser, & Assouline, 2014; Winebrenner & Devlin, 2001).

Evaluate the grouping types. Finally, a formal evaluation should examine the success of each type of grouping. Data should be collected regarding the number of students involved in each grouping type, student growth (as measured through

assessment data), how well the grouping was received (as measured through parent, teacher, and student surveys), and grouping benefits and challenges (as measured through data and anecdotal information). Once data have been collected and analyzed, problems can be addressed and changes made to ensure continued success of the grouping strategy.

UNIVERSAL SCREENING

Ikeda, Neesen, and Witt (2008) defined universal screening as the “systematic assessment of *all* children within a given class, grade, school building, or school district, on academic and/or social-emotional indicators that the school personnel and community have agreed are important” (p. 113). Universal screening is different from the traditional identification process in gifted education, which often involves a nomination or referral process. With referral, parents and teachers recommend students for screening or further testing, whereas in universal screening, all students are administered at least one formal assessment as the first step in the identification process (Lakin, 2016). This initial screening is then usually followed by additional assessments related to the specific gifted education program and services.

Universal screening grew out of a concern that not all gifted students, particularly those from underrepresented groups, were being referred for gifted education services. McBee, Peters, and Miller (2016) reported that nominations or referrals for testing resulted in a large proportion of gifted students being missed, as many as 60% being false negatives (i.e., truly gifted students are not identified). There is a great variability among teachers in recommending students for gifted programs (McBee, 2006; Siegle, Moore, Mann, & Wilson, 2010). Teachers do not tend to recognize talents equally among all students and often overlook

those who do not exhibit characteristics they view as typical of gifted students (e.g., advanced vocabulary, high achievement; Carman, 2011; deWet & Gubbins, 2011; Speirs Neumeister, Adams, Pierce, Cassady, & Dixon, 2007; Plata, Masten, & Trusty, 1999; Siegle & Powell, 2004). With students from diverse backgrounds, teachers may also focus more on student deficits rather than on cultural differences and individual strengths (Ford, Harris, Tyson, & Trotman, 2002). To increase the number of students referred, researchers suggest more training for teachers in gifted education and encouraging teachers to refer the top 25% of their class (Foreman & Gubbins, 2015; Harradine, Coleman, & Winn, 2014; McBee et al., 2016; Miller, 2009; Speirs Neumeister et al., 2007). Similarly, parents may not recognize the abilities of their children, particularly those from poor and immigrant backgrounds (Card & Giuliano, 2015, 2016).

EVIDENCE

Although numerous studies support acceleration and grouping, one quasi-experimental study is cited in the literature related to universal screening. Using longitudinal data from a large, diverse district in Florida that moved from a system based on teacher and parent referral to a system based on universal screening, Card and Giuliano (2015) examined the effects on the number of identified gifted and talented students in the district and compared the effects with a matched comparison group of schools in Florida. Their data included a 2-year time period before universal screening was fully implemented, a 2-year time period when it was fully implemented, and a 2-year time period when an underfunded version of the program formally ended. Prior to implementation of universal screening, students had to be nominated by a parent or teacher before they were able to access an individually administered

intelligence test. Note that in Florida, students had to achieve a score of 130 (98th percentile) to be identified as gifted; however, if the students were considered disadvantaged due to being classified as English language learner or being eligible for free or reduced lunch, they needed to achieve a score of 116 (85th percentile). If students met the criterion on the intelligence test then a final determination was made based on “parent and teacher inputs and scores on a checklist verifying that the student showed evidence of ‘gifted indicators,’ including motivation, creativity, and adaptability” (Card & Giuliano, 2015, p. 4). When universal screening was implemented, the district tested all second-grade students using a nonverbal measure of cognitive ability. All students who met the cut-scores on the screening test (i.e., 130 or 116) were eligible for the individually administered intelligence test. They needed to meet the cut-scores on the intelligence test to be considered for the gifted and talented program.

Prior to implementing universal screening, students in the gifted and talented program were overrepresented by White, high-SES students. Only 28% of gifted students in the third grade were African American or Hispanic, although these students made up 60% of the population. Universal screening led to a 180% increase in participation rates among students from traditionally underrepresented groups: African American, Hispanic, low SES, and ELL (McBee, 2016). In addition, prior to universal screening, 18% of schools in the target district contained 50% of the gifted students; under universal screening, the distribution became more equitable with about 57% of schools containing 50% of the district’s gifted (Card & Giuliano, 2016; McBee, 2016). Achievement gains were similar for students identified under the new universal screening program compared to the previous referral program. Lakin

(2016) strongly encouraged districts that are concerned about representation in their gifted programs to consider this approach. She also suggested in her review of Card and Giuliano's study that further research is needed to examine differences in specific cut-scores and how they impact universal screening, the correlation between the screener and follow-up assessments, and their relevance to the gifted program and other services.

PRACTICAL CONSIDERATIONS

To implement this evidence-based practice, administrators must consider professional compliance standards and legal requirements; multiple ways to use universal screening; the process for selecting the assessment(s); communicating with other administrators, teachers, and parents; and evaluation of its effects on increasing the numbers of underrepresented groups in the gifted program.

Consider professional compliance standards and legal requirements. To plan and implement universal screening with fidelity, district administrators need to have a clear understanding of any compliance or professional standards that exist at the local, state, or national levels. Following this understanding, administrators need to investigate federal and state laws and the school district's policy on testing. For example, obtaining parent permission is generally not required when *all* students are assessed. However, once a student moves into the formal gifted identification assessment process, parents must be informed.

Find multiple ways to use universal screening. In times when education funding is being reduced, it is advisable for administrators to find multiple ways to use limited resources. Identifying all the ways universal screening information can be used in making instructional decisions builds collaboration and supports all students

within the district. For example, the data from universal screening might be used not only for referring students for gifted education services but also for special education services. In this case, the universal screening instrument might address a broader range of content and/or aptitude areas.

Select the specific assessments. Once the purpose of the assessment is determined, administrators need to select specific assessments that will be used. Some of the questions might include: Do the test norms resemble the school district's population? Does the test manual include studies related to reliability and validity? Who may administer the assessment? May the assessment be administered in small and/or large groups? Is the test timed or untimed? How much does the test cost?

Communicate with campus leaders. Campus leaders need to have input into the selection of assessments, testing schedule, and how the results will be used to improve student learning. Principals, counselors, and gifted/special education specialists will provide leadership for communicating with teachers, parents, and other stakeholders. They will ensure that students with special needs such as English learners or those who need testing accommodations are considered when the test is implemented.

Communicate with teachers. Teachers also need to understand the purpose of universal screening and be aware of how they might use the information as part of tiered or universal screening process. If the universal screening is part of a more formal gifted identification process, teachers will need professional learning to refer students with potential, particularly those from diverse backgrounds who may not have had early learning opportunities or who may demonstrate their talents in ways other than

those traditionally associated with giftedness.

Communicate with families.

Families also need to understand the purpose of the assessment. If *all* students are tested and the testing is not part of the formal identification process, parents may not realize the purpose of the assessment. Is it part of providing better instruction for students in the classroom? Is it part of identifying interventions for a second tier of services within a Response to Intervention framework?

A generic form letter can be sent home either by mail or with the student to address the purpose of the assessment, inform the parents how their child will be included, and explain how the assessment results will be used. The date(s) and time(s) of the assessment(s) can easily be added to a campus's letters. Campuses can include the notice in their newsletters or on their web pages, as can the department tasked with the universal screening. Some districts employ "robo calls" and those can also be helpful in ensuring communication has been sent and received.

However, if universal screening is part of a formal gifted identification process, parents will need to be informed, understand the purpose of the gifted education program, and sign a consent letter for their student to be tested. Having a referral opportunity, however, does not necessarily ensure equity of access. Parents may not have reliable Internet service to access an online identification form, may not understand the form, or may not even understand the purpose of gifted education and why their child might benefit from services. Administrators need to use multiple forms of communication with parents to let them know about screening and the formal identification process—how they are similar and different. Administrators may be concerned about informing parents of the specific assessment being used. A

general description of the assessment experience is appropriate for parents (e.g., administration in groups, addresses both achievement and aptitude, some parts are verbal while others are not), but not the specific name of the test. Unfortunately, some parents have purchased study materials or paid for tutoring to prepare their students for particular assessments. This preparation may artificially inflate the results and will therefore invalidate the results from the assessment.

Determine how to report results. Assessment results can be reported in a variety of ways including numerically and visually. Numerical options include the raw score (how many questions were answered correctly out of the number of possible correct), the scaled score (the transformation of the raw score to a common scale such as a bell-shaped curve), and percentile score (how the score relates to others' scores in the same age or grade level). Percentile ranks are most often easier to understand for teachers and parents (e.g., 80th percentile = your student scored as well as or better than 80% of the students who took the test). Visual representations also help in explaining the standard error of measurement because they usually include a bar graph with the score shown in a band.

Conduct an evaluation. Just as with grouping and acceleration practices, a formal evaluation needs to be conducted to determine if the universal screening process has been implemented with fidelity and has identified more students from underrepresented groups. Specific areas might be closely examined such as cut-off scores, the relationships among assessments used in the formal identification process, and the long-term success of students identified using universal screening and previous identification processes.

CONCLUSIONS AND RECOMMENDATIONS

Gaps between research and practice can be reduced by mutually beneficial, respectful partnerships between practitioners and researchers. Researchers can learn about the multiplicity of tasks that administrators must consider when implementing any practice. Practitioners can learn about evidence-based practices that are supported by rigorous research designs and demonstrate improved student outcomes.

This article examined three evidence-based practices in gifted education: acceleration, grouping, and universal screening. The implementation of these and other evidence-based

practices requires collaboration at multiple levels. A first step is to create a team comprised of central-office administrators and directors, specialists in gifted education and content areas, principals, teachers, and university partners. This team should evaluate the relevance of each evidence-based practice (acceleration, grouping, or universal screening) for the needs of the school district. Once the team determines that the practice is relevant, they *need* to provide an overview of the practice to those who might be interested. Following the overview, campuses that choose to participate *need* to receive more in-depth professional learning and the necessary human and material resources to implement the practice with fidelity. Stakeholders also *need* to be involved and understand the practice. Some practices, such as within-class grouping, can be piloted on one or more campuses, whereas acceleration would require collaboration across campuses (e.g., elementary schools that feed into specific middle and high schools). Piloting might be helpful not only in providing choice and follow up but also in evaluating challenges and needs for resources. The good news is knowing that when evidence-based practices are implemented with fidelity, they should effect positive student outcomes.

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