An Overview of Effective Programs for Gifted Children

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What Do Effective Programs for Gifted Children Have in Common?

- An array of services that address different forms and degrees of giftedness and different forms and degrees of talent –guided by a strong vision statement and set of policies
- An identification system that uses multiple data points (objective and subjective) that correspond to each service in the array
- An articulated scope and sequence of differentiated curricular outcomes for every academic domain K-12
- An instructional management system that allows services to be provided to all qualifying gifted and talented learners on a daily basis (e.g., grouping options, acceleration options, individualization options) at the correct level of ascending intellectual demand (AID)
- An assessment system that documents and monitors gifted learner progress with these curricular outcomes (achievement, motivation to learn, self-efficacy)
- A scope and sequence of differentiated affective (including social, psychological, guidance, counseling) experiences to support the full development of each learner's talent development

How Do We Know Our Program is Effective?

- It conforms to the NAGC Programming Standards for (a) learning & development, (b) assessment, (c) curriculum planning & instruction, (d) learning environments, (e) programming, and (f) professional development
- It ensures the "Gifted Child's Bill of Rights"
- Each program practice is research- or evidence-based

The Gifted Child's Bill of Rights
(T. Fisher, Parenting for High Potential, 9/2007)

- Right to know about one's giftedness
- Right to learn something new everyday
- Right to be passionate about own talent area without apologies
- Right to have an identify beyond that talent area
- Right to feel good about own accomplishments
- Right to make mistakes
- Right to seek guidance in the development of own talent area
- Right to have multiple peer groups and a variety of friends
- Right to choose which of one's talent areas one wishes to pursue
- Right to NOT be gifted a everything

Research-Based Practice One
Daily Challenge in Talent Area(s)

- However it can be managed, gifted learners must be provided with appropriately complex knowledge and skills in their area or areas of demonstrated performance.
- The ***effort*** is in rearranging how high performers are organized so that this can be provided --no additional financial cost or personnel should be necessary.
- The ***effect*** expected should average about 1/3 to 1/2 additional year's growth in the talent area.

Research-Based Practice Two: Rigorous Challenge in all Academic Areas

- Although this rigor does not have to be daily in every academic area, it must be consistent, articulated across grade & building levels, and consciously delivered.
- The ***effort*** will be in funding training in differentiation for regular classroom teachers with gifted learners in their classes and in finding/developing and funding the materials & resources for these teachers to use.
- The ***effect*** will be in more positive academic self-esteem, less stress (caused by boredom), more motivation to learn, and higher degrees of higher order thinking, when integrated in the differentiated experiences offered.
- The brighter a student is the more often this additional challenge will be necessary (there is an IQ relationship on this!)

Research-Based Practice Three: Opportunities to Work Independently and Be Unique

- Gifted students must be taught the skills (scaffolding) of how to work and learn independently.
- The ***effort*** involves teaching each child how to be successful with an independent investigation, using a model such as Treffinger or SEM-Type 3 or Betts ALM and then providing the supervision and facilitation as the learner "investigates".
- The ***effect*** is in increased motivation to learn, interest in subject area, improved academic resilience (cognitive risk-taking), and self-efficacy.
- For some forms of independent study, the effect size is zero (usually because we are not able to measure what one very specific study taught when student is given a standardized measure of performance!), but recent studies have shown up to three and one-third years additional growth in a course of study when student can set own pace when working independently!

Individualization and Independent Learning Research

- Non-graded classrooms (ES= .38)
- One-to-one mentoring/tutoring (ES= .22, .71, .16, 2.00)
- Compacting (ES= .83, .20, .17)
- Credit for prior learning (ES= .56)
- Credit by Examination (ES= .59)
- Talent Development (Literature Only)
- IEPs or ILPs (Literature Only)
- Distance Learning (Literature Only)
- Independent Study (ES= 0; 2.35)
- On-line Computer Courses (ES= .74, .40)
- Talent Search (ES= .34)

Research-Based Practice Four: Teaching of Concepts, Issues, Problems, Principles, Generalizations in Whole-to-Part Sequence

- As decontextualists, gifted learners must see the whole "picture" first and then be allowed through analysis to break it down into its parts and relationships. This requires that the whole we start with involves more complex and abstract content such as concepts or problem-based learning.
- The ***effort*** is in training teachers of the gifted to identify the "big ideas" of each content area they teach and helping them find/develop materials and resources to teach in this fashion.
- The ***effect*** will be in greater critical and creative thinking performance, greater motivation to learn, and maximum transfer to other areas of study.

Research-Based Practice Five: Double or Triple-Time Pacing in Math and Science

- This instructional strategy ensures that mathematically and scientifically gifted learners will retain what they learn with greater accuracy because of their significantly faster learning rate.
- The ***effort*** is the training of a single (or all) math and science teachers, especially at the middle and high school levels in how to deliver content at this accelerated pace.
- The ***effect*** for students will be between 3/5s and 4/5s of an additional year's growth in the content area.

Research-Based Practice Six: Elimination of Excess Drill and Review

- Once mastery is demonstrated in a content or topic area, gifted learners should not be made to review or drill on this information more than 2-3 more times, at spaced intervals.
- The ***effort*** consists of training all teachers in ways to eliminate excess drill and review and finding/developing and funding materials and resources that can be substituted for practice time.
- The ***effect*** will be greater accuracy in retained information, greater focus on new learning, and a greater chance that gifted learners will be motivated to continue learning in that area.
- The research on this has been strongest in math, science, and foreign language learning, but some evidence is now being found that it applies to other areas of the curriculum as well.

Research-Based Practice Seven: Exposure to Content Beyond Grade Level in Specific Area(s) of Talent

- This can be provided through subject acceleration, cross-grading, multi-age or multi-grade classes, dual enrollment, early entrance to school, and/or mentorships.
- The ***effort*** is mostly managerial --making some change in the way or when a gifted learner's education will be delivered.
- The ***effect*** ranges from 1.9 to 5.9 additional grade equivalent months' growth per provision, with substantial improvements in socialization and self-esteem in many cases.

Research on Instructional Management:
Acceleration Permutations

- Early Entrance to School (ES= .30, .10)
- Subject Acceleration (ES= .48)
- Concurrent Enrollment (ES= .22, .35)
- Advanced Placement courses (ES= .62, .10)
- International Baccalaureate (ES= .54, .03)
- Credit by Examination (ES= .59)
- Cross-grading (ES= .45, .46)
- Mentorships (ES= .22, .71, .16, 2.00)
- Summer College Programs (ES= .45, .36)
- Saturday College Programs (ES= 1.56)
- Talent Search Program Participation (ES= .34)

Research-Based Practice Eight: Shortening the Number of Years Spent in the K-12 System

- This can be provided for those gifted learners performing significantly above grade level in almost every academic subject through grade skipping, grade telescoping, and early admission to college.
- The ***effort*** is managerial in nature --someone to coordinate the provision and track the effects on the individual gifted learner or learners.
- The ***effect*** will range from 2/5 to a full year's additional growth across all subject areas. In some cases socialization improves substantially as well.

Research on Instructional Management:
Grade-Based Acceleration Permutations

- Credit by Examination (ES= .59)
- Multi-aged Classes ** (ES= .38)
- Grade Skipping (ES= .37, .34, .42)
- Grade Telescoping (ES= .40)
- Early Admission to College (ES= .25, .29)

Research-Based Practice Nine: Opportunities to Socialize and to Learn With Like Ability Peers

- This can be provided through a number of like ability or like performing grouping options, such as full-time gifted programs, send-out programs, regrouping for specific instruction, within class grouping, like ability cooperative learning, and cluster grouping.
- The ***effort*** is daily implementation of this opportunity for a substantial block of time whether for one academic area or for several.
- The ***effect*** ranges from 2.6 additional grade equivalent months of achievement to 4/5 of an additional year's growth, depending upon the grouping option provided.

Research on Instructional Management: Grouping Permutations

- Full-time ability grouping (ES= .49,.33)
- Regrouping for specific instruction (ES= .34, .79)
- Cluster grouping of GT students (ES= .59, .44)
- Pull-out grouping (ES= .45,.44,.32)
- Within class ability grouping (ES= .34)
- Cross-graded classes (ES= .45,.46)
- Mixed ability cooperative groups (ES= 0)
- Like ability cooperative groups (ES=.28)
- Residential accelerated high schools (ES= 1.04)

Research-Based Practice Ten: Opportunities to be Credited for Prior Learning

- This opportunity can be provided through compacting, testing out, or just plain credit for prior learning
- The ***effort*** required is a coordinator who will determine levels of mastery for the area considered for credit and finding/funding materials and resources to be used with a gifted learner when credit is given.
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What Makes This Program Effective?

- Small "blue collar" community that took it upon itself 12 years ago to start homogeneous classes for gifted learners. Used IQ, motivation, and performance data to qualify children for the program. This school within a school has attracted gifted children from many surrounding districts and has also become a "magnet" for twice exceptional learners in these same homogeneous classrooms. The program ranges from grades 2 – 8, with one teacher in each elementary grade level, and one English and one math teacher in each middle school grade level with this responsibility. Curriculum includes College of William and Mary language arts, social studies, and science units, and M^3 and Zaccaro math investigations. Teachers are provided with substantial PD in order to teach these classes. Students perform at very high levels in state tests (no AYP issues in the schools where this program is located), and gifted children in the district who opt NOT to be involved, are offered "cluster grouping" in their neighborhood school instead, with training provided the cluster teachers as well. SO… why does this work?

Making the Program "Work"

Component	Yes/No/Partial
Array of services, policy, vision	Yes
Identification system to match	Yes
Scope & sequence in academics	Yes
Instructional management	Yes
Assessment systems for monitoring student , evaluating program outcomes	No
Scope & sequence of affective experiences	No
Daily challenge in talent areas	Partial
Rigorous challenge in all academics	Yes

Making the Program "Work"

Component	Yes/No/Partial
Independent work, individualization	Partial
Concepts taught whole to part	Yes
Differentiated pacing	Partial
Elimination of unneeded practice	Partial
Subject acceleration	Yes
Grade-based acceleration	No
Grouping	Yes
Credit for Prior Learning	No

Last Words

- No program is "perfect", but trying to include as many of the program components and research-based practices as humanly possible, keeping in mind the "Bill of Rights" can provide learners with gifts and talents with a very satisfactory preparation for their world to come!

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