A Nation Empowered: Professional Learning about Acceleration is Essential

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• Dr. Ann Lupkowski Shoplik
• Administrator, Acceleration Institute
• Adjunct Professor
• ann-shoplik@uiowa.edu

• Dr. Laurie Croft,
• Associate Director for Professional Development, Belin-Blank Center
• Clinical Associate Professor, Gifted Education
• laurie-croft@uiowa.edu
Acceleration is the best-researched, yet most under-utilized educational option available for gifted students.
The backstory: 2004

- The paradox: *Policy and practice were not aligned with research.*
- Students with the greatest needs least likely to receive the correct intervention.
- Although well-intentioned, the reasoning underlying this paradox is false.
- The focus of *Nation Deceived* was to start the conversation and dispel the myths.
Myths and Excuses
from Volume 1, *A Nation Deceived*

• Age trumps aptitude
• It’s bad to push kids
• They will have trouble making friends

Thanks to Kimm Doherty and Linda Deal for assistance with graphics
Myths and Excuses
from Volume 1, *A Nation Deceived*

- It will lower the self-esteem of the student or of other students
- It’s not fair to the other kids in a classroom
- This intervention runs counter to personal beliefs (concerns about equity, etc.)
Myths and Excuses from Volume 1, *A Nation Deceived*

- Teachers lack familiarity
- Confidence in the value of the intervention is low
From Deception to Empowerment

Evidence Trumps the Excuses Holding Back America’s Brightest Students

Editors:
Susan G. Assouline,
Nicholas Colangelo,
Joyce VanTassell-Baska, &
Ann Lupkowski-Shoplik
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www.nationempowered.org
Big picture: What can we learn from *A Nation Empowered*?

- **Acceleration works.** An extensive research base supports acceleration.
- **Methods have been developed to evaluate candidates for acceleration systematically** and guide educators through the process.
- **Acceleration can be provided in many ways,** including content acceleration, grade-skipping, and dual enrollment. **Acceleration can be tailored to individual students’ needs.**
What can we learn from *A Nation Empowered*? (Continued)

- Acceleration supports the *social/emotional* development of gifted students by placing them with other like-minded students
- Acceleration is an *inexpensive* option
- Acceleration supports the *continuous academic development* of students by providing academic challenges & stimulation
- **Resources** for making decisions are available in *Nation Empowered* and at [www.accelerationinstitute.org](http://www.accelerationinstitute.org)
## The Five Dimensions of Acceleration

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pacing</strong></td>
<td>Calibration, reporting, continuity of the process over the years</td>
</tr>
<tr>
<td><strong>Salience</strong></td>
<td>Age of student, stage of schooling, type of acceleration</td>
</tr>
<tr>
<td><strong>Peers</strong></td>
<td>Knowledge of the acceleration by others, type of acceleration, group or individual, degree of acceleration</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Population centers, acceptability by schools, state policy, cost, availability of courses or programs, transportation</td>
</tr>
<tr>
<td><strong>Timing</strong></td>
<td>Age-related issues, during school vs. outside of traditional school time</td>
</tr>
</tbody>
</table>
What’s an effect size?

\( M_{\text{experimental group gain}} - M_{\text{comparison group gain}} \)

\( \frac{\text{SD}_{\text{pooled}}}{\text{SD}_{\text{pooled}}} \)

It allows us to compare the results of many different research studies in a standardized manner.

Interpretation:

.20 = small/negligible
.50 = medium
.80 = large

Another interpretation:

An effect size of .30 would suggest the grade equivalent improvement in a given outcome for one group of about three additional months of achievement of the experimental group over the control group.
Some interesting findings

Interpretation: 0.20 = small/negligible; 0.50 = medium; 0.80 = large
(All of these report academic effects)

Compacted curriculum: +0.20
Concurrent/dual enrollment: +0.41
Single subject acceleration +0.42
Summer university courses +0.43
AP Courses: +0.60
Radical Acceleration: +0.61
Grade skipping: +0.67
Accelerated/honors HS classes: +0.69
Computer online courses: +0.72
Saturday classes on univ. campus +1.56
## Effect Sizes (from Rogers chapter in *A Nation Empowered*)

<table>
<thead>
<tr>
<th></th>
<th>Subject-Based Acceleration</th>
<th>Grade-Based Acceleration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary Academic Effects (all grades)</strong>*</td>
<td>+0.51</td>
<td>+0.50</td>
</tr>
<tr>
<td><strong>Summary Socialization Effects (all grades)</strong></td>
<td>+0.16</td>
<td>+0.23</td>
</tr>
<tr>
<td><strong>Summary Psychological Effects (all grades)</strong></td>
<td>+0.24</td>
<td>+0.34</td>
</tr>
</tbody>
</table>

*These students gained an additional 5.1 months over comparison grp
5.0 months over comparison group
Grade-Based and Subject-Based

<table>
<thead>
<tr>
<th>Category</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>+0.51</td>
</tr>
<tr>
<td>Socialization</td>
<td>+0.23</td>
</tr>
<tr>
<td>Psychological</td>
<td>+0.24</td>
</tr>
</tbody>
</table>

**Effect Size**
- Large: +0.50
- Medium: +0.51
- Small: +0.16

**Grade-Based**
- +0.34

**Subject-Based**
Alternatives have less support

- Enrichment (.20)
- Pull-out Resource (.20)
- Classroom Differentiation (.25)
- Independent Projects
- Cooperative Learning
- Special-topic Projects
- Field Trips
- Competitions

- Some students’ needs *can* be met by these approaches
- Anything that helps is a plus

- But, for high ability students, none of these approaches has produced the compelling research evidence of acceleration.
Emerging trends in the past decade shaped *A Nation Empowered*

- Twice-exceptionality
- Core curriculum
- Diverse populations
- STEM
- Professional Development
- International impact
- Specialized schools, such as state residential STEM schools
- Early entrance to college
- Bridging the disconnect between in-school programming and out-of-school
Making Decisions about Whole-Grade Acceleration

• Iowa Acceleration Scale
  – Developmental factors
  – Interpersonal Skills
  – Attitude & support of student, parent, school
  – Critical issues for grade skipping (attitude of student, level of ability, grade level of siblings)
Above-level testing differentiates “talented” students from “exceptionally talented” students

Section A shows the percentile rank on a grade-level achievement test.

The students we are focusing on scored at the 95\textsuperscript{th} percentile or above.
Above-level testing differentiates “talented” students from “exceptionally talented” students.

Section B shows how the above-level test “spreads out” the scores of the academically talented students. Some students earn low scores, most earn average scores, and some earn high scores.
Content-Based Acceleration

• For students who:
  – Demonstrated academic ability in one or more academic areas
  – Are not recommended for whole-grade acceleration

• Benefits students with uneven academic profiles who need acceleration in the area of their strength

• May have already skipped a grade but need additional acceleration in extreme strength area
Determine readiness for acceleration in STEM

- www.idealsolutionsstem.com

Comprehensive descriptions for readiness for advanced math and science curriculum that are related to the interpretation of scores from standardized tests.

Recommendations are aligned with national standards.

Designed to be used by educators and parents.

Reports are detailed and comprehensive and provide an extensive listing of resources. We’ve investigated the options for you!
States with Acceleration Policies

- **Ohio**: All school districts are required to implement an acceleration policy.

- **Colorado**: uses a carefully defined process for evaluating potential early entrants to kindergarten or 1st grade (House Bill 08-1021, passed in 2008). Well-defined process for admitting highly gifted students early (See Whole-Grade Acceleration chapter in A Nation Empowered for more details).

- **Other states** with acceleration policies: AL, AZ, KS, MN, NC, TX, WV
Guidelines for Developing an Academic Acceleration Policy

• Download (no cost): http://www.accelerationinstitute.org/Resources/Policy_Guidelines/

• Developed by
  – the National Association for Gifted Children,
  – Belin-Blank Center, University of Iowa, and
  – Council of State Directors of Programs for the Gifted
Resources provided by the Belin-Blank Center, Univ of Iowa

- In-School Testing (new online test, I-Excel, www.I-Excel.org)
- Talent Search
- IDEAL Solutions
- Online Advanced Placement courses plus other courses
Figure 1. A Proposed Model of Professional Development Around Acceleration

Foci of Professional Development
- Content
- Application
- Support

Process of Change
- Reflection
- Reflection & Feedback

Teacher and School Counselor
- Questioning Attitudes
  - Regarding students
  - Regarding concept of giftedness
  - Regarding concept and practice of acceleration
- Questioning Practice
  - Degree of confidence
  - Number of attempts at new practice
  - Degree of perceived positive student change

Change in Attitudes Towards Acceleration
Change in Practice - Utilization of Acceleration Options
Change in Student Outcomes - Success and Achievement
Learning about Acceleration

• Educators have not learned about acceleration in Teacher Education Programs

• Professional learning about acceleration is unlikely to occur in most schools today
  ❖ Focus on practices to support student outcomes in high-stakes testing
Attitudes and Beliefs

• Teachers / School Counselors must reflect on *implicit* attitudes

• *Determining Attitudes Toward Ability* can assess before a PD program

• Changes in attitude → changes in practice

• Changes in student outcomes (success and achievement)
Professional Development

• B-BALI (Advanced Leadership Institute) at Belin-Blank Center will feature A Nation Empowered and the Iowa Acceleration Scale
  – July 24-26 2016, University of Iowa

• An online graduate course on academic acceleration is offered regularly through the University of Iowa College of Education.
  – contact ann-shoplik@uiowa.edu for information about the next class
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• Gifted-Teachers Listserv