Twice Exceptional Learners in Minnesota

What Project 2EXCEL Has Found

Rogers, 2011
—Let’s Put On A Show!"

- Two GT Directors mentioned need for such a project just as the Javits grants for 2008 were being announced. We networked with two additional Coordinators/Directors and sat down to write a grant application.
- Jacob Javits grant proposal accepted for funding in October, 2008
- Included 4 different school districts, each with self-contained gifted classrooms or total gifted school in metropolitan area of Minnesota
  - Capitol Hill (SPPS) - single school model
  - Inver Grove Heights
  - South Washington County
  - Bloomington **
- Five year grant for half a million U.S. dollars, 1 of 7 national grants in 2008

** Has since left the project
Who is involved

• Twice exceptional learners starting at grades 3, 4, or 4/5 in Fall, 2009), depending upon district to be followed for 4 years
• Teachers in self-contained gifted classes, one grade level per year, from grades 3-8
• Parents of twice exceptional learners starting with grades 3-5, plus all twice exceptional learners in each earlier grade once the accommodations have proven successful at that grade level

Rogers, 2011
Project Goals

• Provide teachers with training and support to address dual needs of twice exceptional learners in 4 categories (ASD, EBD, ADD, and SLD)
  – Graduate coursework
  – In-service training
  – Resources and materials budget
  – Observations
  – Writing and planning days (6 per year)

• Provide parents of twice exceptional learners in each district with training and resources through discussion group sessions (4 per year)
Project Goals

• Provide accommodations/adaptations to gifted curriculum to ensure academic and affective success of 2X learners in math and reading/language arts
• Determine systematic procedure for accurately identifying twice exceptional children and provide prevalence data to aid districts in planning for these children
• Share evidence and strategies learned about how to manage 2X programs, 2X curriculum and provide for 2X children within school systems with the general public
  – Project Website (www.stthomas.edu/project2excel)
  – Professional conference presentations
  – Reports of research conducted and data collected
Project Phases
October, 2008 – August, 2009

- Identified gifted learners who also present with
  - Learning disabilities - reading, math, or writing (SLD)
  - Emotional/behavioral disorders (EBD)
  - Autism Spectrum disorders (ASD)
  - Attention deficit disorders (AD/HD)
  - Find first year’s twice exceptional learners and place them in either the experimental or control classes (randomly) to begin Fall, 200

- Began professional development for the experimental teachers participating in the project (Nielsen & Higgins)

- Collected all knowledge and research out there on twice exceptionality to help make good PD and curricular decisions for participating teachers and learners; disseminated what we found out to the greater community as well

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Project Phases
September, 2009 – August, 2010

• Trained and supported experimental teachers of twice exceptional learners in Years 3-5 via:
  • In-service training with experts in twice exceptionality
  • Writing and planning time to develop accommodations for the gifted differentiated curriculum being used in reading/language arts and in mathematics
  • Certification in twice exceptional education via a 6-course certificate program offered on-line
  • Observations twice monthly of experimental teachers’ accommodations in their classrooms with their identified twice exceptional learners

• Development of parent training modules (4) built on the SENG discussion facilitation model on affective and cognitive topics including:
  • Discipline, organization, self-management
  • Motivation, enthusiasm, underachievement
  • Intensity, perfectionism, stress
  • Peer relationships

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Project Phases
September, 2009 – August, 2010

• Development of "toolkit" of adaptations and accommodations for reading/language arts gifted curriculum used in the districts‘ self-contained gifted classes, grades 3-8 **:
  • William & Mary Language Arts Curriculum
  • SEM-R reading curriculum
  • Houghton Mifflin reading program
  • Michael Clay Thompson language arts series
  • Everyday Mathematics series
  • Harcourt Brace mathematics textbook series
  • M3 mathematics supplementary curriculum (Mentoring Mathematical Minds)
  • Zaccaro Math Explorations

** First year‘s teacher strategies are found on project website as well as hard copy format in district offices.

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Project Phases
September, 2009 – August, 2010

• Twice Exceptional learners in all four districts placed in experimental and control classrooms
  – 2 experimental grade 4/5 classrooms in Bloomington and 2 control classrooms in same school
  – 3 experimental classrooms in Inver Grove Heights and 6 control classrooms (GT/EX in cluster or pullout services)
  – 2 experimental classrooms in Capitol Hill and 2 control classrooms
  – 2 experimental classrooms in South Washington County and 5 control classrooms (GT/EX in cluster classroom services)
Project Phases
September, 2009 – July, 2010

• Experimental classrooms observed twice monthly, while control classrooms observed once a month using *Classroom Observation Scale-Revised* (adapted for 2X)

• Pre- and post testing conducted on all experimental and control 2X learners to assess growth in math and reading achievement, motivation to learn, and self-efficacy.
  – *Iowa Tests of Basic Skills* (abbreviated, out-of-level) – (Lohmann)
  – *Children’s Academic Intrinsic Motivation Inventory* (Gottfriedson)
  – *Self-Perception Inventory* (Harter)

Rogers, 2011
Project Phases
August, 2009 – July, 2010

- Experimental teachers and district personnel connected with the project completed first three courses in 6-course certificate program
  - Introduction to Gifted Education – focus on case study approach with gifted learners (compacting option)
  - Introduction to Special Education – focus on case study approach with learners with ASD, SLD, ADD, or EBD issues (compacting option)
  - Introduction to Twice Exceptional Education – general focus on major texts produced on subject in addition to current cultural perspectives on twice exceptionality

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Project Phases
August, 2010– July, 2011 – This Year

• Training of experimental teachers continued, with IGH middle school cadre added to certificate program in preparation for onslaught of 2X learners coming from Atheneum program next year.
  – Professor Susan Baum conducted 2 full-day training as well as a parent session
  – Four “teacher topics” full-day in-services were held at St. Thomas by experts in specific 2X knowledge and skill areas
    • Capitol Hill team – child study profiling used at school to develop unique plans for each 2X learner in project
    • Dr. Teresa Boatman/ Mary Wandrei, Lisa Larson– social and emotional issues in twice exceptionality
    • Dr. Terrence Friedrichs on reading and math strategies for GT/SLD learners
    • Assistive Technology Day including Smart Boards, MAC products, LiveScribe, Irlen overlays, Writing and reading organizers and software demonstrations

Rogers, 2011
Project Phases

• The next two courses in the 6-course certificate were offered:
  – Case Studies in Exceptionality 1: GT/SLD and GT/EBD education diagnosis and planning skill development
  – Case Studies in Exceptionality 2: GT/ASD and GT/EBD education diagnosis and planning skill development

• Children moved into their second year in the experimental and control classrooms
  – Two of the teachers moved grade levels and thus continued as experimental teachers in the project
  – New teachers brought on joined the certificate program cohort, as did middle school upcoming experimental teachers in one district.
Project Phases

• Classroom observations, coupled with short teacher interviews conducted twice monthly in experimental schools; control classrooms visited at beginning and end of school year

• Next four parent modules presented in respective school districts, but all 5 years‘ worth of modules (n=20) were developed

  – Modules include: Underachievement in 2X Children, Overexcitabilities in 2X Children, Stress & Anxiety in 2X Children, Organizational Styles of 2X Children, Motivation in 2X Children, Eat, Play, Learn: Wellness for 2X Children, Advocacy for Parents of 2X Children, the Absent Minded Professor Syndrome and Twice Exceptionality, Strengths of 2X Children, Your 2X Child’s Writing Challenges, Implications of Twice Exceptionality, Risk & Resilience in 2X Children, Twice Exceptionality and Self-Management, Sibling Relationships and Twice Exceptionality, Resources for Raising a 2X Child, and Expectations

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Importance: Need to Know How Many are Out There!

• **Contradictions in the literature**
  – GT/AD/HD = 16% of GTs (Kaufmann et al, Moon et al, Hall et al, Tucker et al)
  – GT/EBD = 5-7% of GTs (Webb et al, Lovecky)
  – GT/ASD = 3-16% of GTs (Webb et al, Lovecky)
  – GT/SLD = 3-36% of GTs (Baum et al, Webb et al)

• **Neglect in service provision**
  – Can’t qualify for SPED
  – Don’t thrive in GT services (without support, numbers game works against them)

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Study Procedure

• Each district used a 3-Tier identification protocol
  – Tier 1: discrepant WISC index scores when WISC used for GT identification or for SPED identification (additional IQ testing was done for learners identified by other means); use of screening checklists by teachers and parents
  – Tier 2: additional measures when identification unclear or measures inconsistent; Connor Rating Scales, BASC-2 for EBD, BASC-2 or ADIR for ASD, Woodcock-Johnson Achievement for LD
  – Tier 3: Connor‘s Continuous Performance for ADD, ERB for EBD, ADOS for ASD, wrAP Writing Assessment for SLD

Rogers, 2011
### Tiers for Identification

<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Discrepancies among subtest or index scores on ability test used by a district&lt;br&gt;• District Checklists of specific disability category characteristics or behaviors provided to teachers of students—“suspected” of presenting with a disability</td>
<td><strong>ADHD</strong>: Connor’s Rating Scales&lt;br&gt;<strong>EBD</strong>: Behavior Assessment System for Children (BASC-2); Behavior &amp; Emotional Rating Scales&lt;br&gt;<strong>ASD</strong>: BASC-2; Autism diagnostic Interview – R (ADIR)&lt;br&gt;<strong>SLD</strong>: Woodcock-Johnson Tests of Achievement</td>
<td><strong>ADHD</strong>: Connor’s Continuous Performance Test; Aschenbach Rating Scales&lt;br&gt;<strong>EBD</strong>: Student Risk Screening Scale; Strengths and Difficulties Questionnaire&lt;br&gt;<strong>ASD</strong>: ADOS&lt;br&gt;<strong>SLD</strong>: CTP; wrAP (Writing Assessment)</td>
</tr>
</tbody>
</table>

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Study Procedure

• Each district initially identified students for PROJECT 2EXCEL to begin in 4th grade with plans that the project would follow this group and its paired controls for 5 years.

• Each district, once the experimental and control students were identified, proceeded with the protocol developed to ―find all the 2X learners in their respective districts (except the large urban district, which just provided data on the one gifted magnet school) – we are still working on this. It is harder than one would think!

• A Student Screener was developed in Year 2 to aid regular classroom teachers look for twice exceptionality more systematically than just having an inkling. This contains 5 sections with 16 characteristics or behaviors in each section to cover giftedness, attention, autism spectrum, specific learning disabilities, and emotional/behavior issues. This was used systematically at one school (CH) and was distributed to all buildings in another district (SWC) and used in one control school in the third district (IGH). (It is definitely easier to ―see twice exceptional learners when they are clustered in self-contained programs than when they are in more heterogeneous situations. They are more likely to just look ―average” in the latter settings.

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## Identification Numbers Year 2

<table>
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<tr>
<th>Dist.</th>
<th>GT#</th>
<th>ADD</th>
<th>EBD</th>
<th>ASD</th>
<th>SLD</th>
<th>Tot</th>
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<td>A-9</td>
<td>A-1</td>
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<td>A-9</td>
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<td>A-5%</td>
<td>A-2%</td>
<td>A-3%</td>
<td>A-20%</td>
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Prevalence Results Summary

• Approximately 20% of the 363 GT children in the study were 2X. At 30 GTs per classroom, that means we could expect 5 of those GTs to present with a second exceptionality in each classroom.

• GT/AD/HD learners represented 9% of the 363 GT children. At 30 GTs per classroom, we could expect 3 of those GTs to present with a AD/HD disorder in each classroom.

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Prevalence Results Summary

- EBD represented 5% of the 363 GT children in the study. At 30 GTs per classroom, we could expect 2 EBD children in each 5th grade classroom.
- GT/SLD represented 3% of the 363 GT children in the study. At 30 GTs per classroom, we could expect 1 SLD child in each 5th grade classroom.
- GT/ASD learners represented 2% of the 504 GT children. At 30 GTs per classroom, we could expect 2 GT child with ASD in every three classrooms.

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The magnet gifted school (N = 1050 students) was asked to identify ALL twice exceptional children in the four special education categories from grades 1-8.

In this second year of prevalence finding, each classroom teacher in the school was asked to complete a Student Screener on each "possible" student who scored 10 or more of the characteristics on a specific disability checklist.

These nominations were cross-checked by the School 2X Team to ensure that those identified with the more extensive protocol had been included as well as those students who were already known to the special education team as having a diagnosed disability.

Rogers, 2011
## Developmental Prevalence: Single Case

<table>
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<tr>
<th>Gr.</th>
<th># GT</th>
<th>GT/AD D</th>
<th>GT/EB D</th>
<th>GT/AS D</th>
<th>GT/SL D</th>
<th>Tot 2X</th>
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<td><strong>58</strong></td>
<td><strong>16</strong></td>
<td><strong>33</strong></td>
<td><strong>167</strong></td>
</tr>
</tbody>
</table>

- GT/AD D: 5%
- GT/EB D: 5%
- GT/AS D: 2%
- GT/SL D: 3%
- Tot 2X: 15%
Developmental Prevalence Results Summary

• Sixth grade represents a large “blip” in twice exceptionality in this school; there appears to be a slight increase overall in 2X presentation as gifted learners grow older.

• GT/ADD and GT/EBD seem to be the most prevalent twice exceptionalities to crop up over time.

• Is 7th grade SLD an “outlier”? How about 6th grade ASD? And 6th grade ADD, not to mention 5th grade EBD?

• When looking across the grade levels, approximately 1 GT child in 6-7 in this study presented with some twice exceptionality.

• In a class of 30 we might see 4 – 5 in the room, of whom 2 might be ADD, 2 might be EBD, and 1 each might be ASD or SLD.

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What Has Happened Academically?

- At end of first year we saw small gains in both math and reading/language arts achievement using the ITBS as external measure, pre- and post. New data are being collected for year 2. One district reported substantial improvements for half of their 2X sample on MCAs.
- The measure of intrinsic motivation (CAIMI) has also suggested small gains in motivation to learn mathematics and reading/language arts.
- The Harter Self-Perception Inventory has also shown some gains socially and behaviorally for students and they have not lost ground in terms of their academic self-efficacy. We have had to go through a complete recheck of all scoring for Year 1 and pre-test Year 2 due to changes in the instrumentation (abbreviated them due to their repetitive nature). Actual effect sizes will be forthcoming over the summer.
South Washington County Schools

Gateway

A School-Within-a-School
For Highly / Profoundly Gifted Students
Grades 3-5
Gateway

- Located at Bailey Elementary
- Grades 3-5
- 5 Classrooms
- 121 Students
Gateway: Project Updates

• 5 Students in Experimental Group
• Grades 4-5
• 6 Teachers Enrolled in Courses
• Parent Meetings

“Really I have found this a great place for parents to share ‘tough’ moments and offer suggestions or ideas on what to try.” –Kristine McDonald
Thoughts from a project teacher...

“Overall I certainly have a greater awareness of 2E kids in my classroom, a nice toolbox of strategies, and a whole new perception of their capabilities that I didn’t have several years ago.”

-Anne Bleyl, Gateway Grade 4
Notable Events from a District Perspective

High School Student
- Parent use of project resources
- Partnership with family, counselor, teachers
- Parent sought outside counseling
- Overall heightened awareness in the school
Notable Events from a District Perspective

Intensity/Overexcitabilities

• Information from Teacher Topic shared with other district staff
• Resources purchased for each school
• Teachers report they are being used
Notable Events from a District Perspective

Student ‘Federal Setting III‘ Program

• Identified gifted
• Special education teacher partners with classroom teacher
• Student receives curriculum at ability level
Atheneum
A School-Within-a-School
For Highly / Profoundly Gifted Students
Grades 2-5
• Located at Salem Hills Elementary
• Grades 2-5
• 4 Classrooms
• 114 Students
• 31 Students in Experimental Group
• 15 Students in the Control Group
• Grades 4-5 at all 3 Elementary Schools
• 10 Teachers Enrolled in Twice Exceptional Certification Courses
• Ongoing Parent Dialogue Series
Notable Outcomes from a District Perspective

- Overall heightened awareness in the schools.
• Parents no longer feeling as isolated and “at a loss”.

“Your program has been a life-saver for our son and family. I think the small group 2e series you run is very valuable to parents. You have so much to offer all of us.”

- Parent
• Stronger collaboration among special education staff and gifted education staff
• Increased resources in our differentiation tool kit.
• Access to leading experts in the field

**MORNING CHECKLIST**

- Planner in desk
- Take home folder in desk
- Lunch/snack in room
- Made lunch selection
- Water bottle filled
- Pencils sharpened
- Name on all homework
- Homework turned in
- Backpack and Jacket in Locker

**MORNING WORK**

- Math Activity Lab 8-3 - keep
- Work Catch-Up: ✓ your report
- Word Masters
- Read
Screaming / Emergency
Recess / Outside
Class Discussion
Whispering / Sm. Group
No Talking
• Local leaders in an important field
Capitol Hill Gifted & Talented Magnet School
Full-time Gifted Program
Grades 1-8

St. Paul Public School District 625
Capitol Hill Gifted & Talented Magnet School

- Urban GT Magnet
- 1050 students
- 48% ethnicity
- 30% SES
- Seventeen 5th graders in the study
Who are we...really?

• We are a team of teachers, GT specialists, special education educators and administrators...

• We are working together to support our students
COLLABORATION
Mosaic of SPED, Gen Ed, GT & Administrators

Learning

College courses (Study buddies)
Teacher Resource Team TRT
Child Study
Enrichment Options

Accommodations
Student profiles
Parent education
Solution seeking

Together
Our Children

—CoWriter has made writing fast, easy and fun!”
Two years later…

- Not able to write ideas down to
- Fully writing and completing graphic organizers
- Motivated to write
Two years later…

- Started with only doing literal, factual papers to…
- Being able to go into the imaginary world
- Tech tools, extensive reading, read alouds, soaks it in auditorily, Software; Co-writer, Inspiration
Curriculum Match
Our Children

―The net books help me write 20 times faster!‖
Books on CD

• Access to more complex text

• Providing —“Academic sweat” for critical thinking and exploring complexities in literature!
Enrichment  Choice
Yoga Calm
growing

Advocating

Empowering kids
Kids becoming self-aware of the needs they have

—It’s the kids who ask for the tools—knowing from experience what works”

--Nicolle Hren
SpEd
Professional Community

---We learned so much from our special education staff. The insights into the kids have been phenomenal!"

---Sharon Saunders 5th grade educator
Great professional conversations

—It causes me to ask the question…Is it a disability or giftedness? It‘s a fine line in how you respond. Do you identify or leave it alone.”

--District SpEd educator Carol Aasen
Support from our Administrators

— Involvement in the study has caused us to think more deeply about our students and has given us more tools to help our students

-Renee Jensen
Positive Impact

—The impact of this project has had a far reaching effect on our school culture… far beyond anything we could imagine!"

*Renee Jensen*
Thanks for all your support!