Promoting Diversity in the Referral Process: Teacher Ratings and Other Assessments across Demographic Groups

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Purpose

- Goal in the field to increase identification and services for students from traditionally underserved groups.
- Underrepresentation linked to growing achievement gaps (Plucker, Hardesty, & Burroughs, 2013)
- Persistent challenge of underrepresentation creates questions

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Diversifying Gifted Programs

- Universal screening (e.g., Card & Giuliano, 2015)
- Change ability measures, particularly if language-based (Naglieri & Ford, 2003)
- More careful consideration of norm groups
- Analysis of potential versus performance on achievement measures (Lohman, 2005)
- Providing opportunities for students to demonstrate learning progress (VanTassel-Baska, Johnson, & Avery, 2002)

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Teacher Referrals

- Provide teacher education and professional development that promotes:
  - culturally responsive teaching practices
  - awareness of students' potential inequity in opportunities to learn
  - teachers becoming advocates for underrepresented students

(Dweck, 2006; Ford, 2015; Matthews & Dai, 2014)

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Young Scholars Model

- Emphasizes that teachers:
  - refer students beginning during the early years of school for screening and attention from gifted program specialists.
  - notice and keep track of evidence of student demonstration of specific behaviors
  - Respond to those behaviors with opportunities for access to advanced learning experiences
    (Advanced Academics Program Office, 2013; Horn, 2014)

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The Current Study

- Part of a 5-year longitudinal study
- Goal to increase gifted identification of traditionally underserved students
  - through the use of a behavior rating scale designed to encourage teacher inclusiveness of diverse students in referral group
- Examine whether and how student scores on the data sources used as baseline measures in the study differed by demographic group

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Data Collection

- Initial wave of data collection of longitudinal study
- Teachers received PD on observing and recognizing gifted behaviors in the classroom
- Students referred to project using GBRS

Instruments

- Gifted Behaviors Rating Scale (GBRS)
  - Completed by classroom teachers
  - Four subscales
    - Exceptional Ability to Learn
    - Exceptional Application of Knowledge
    - Exceptional Creative/Productive Thought
    - Exceptional Motivation to Succeed
- Naglieri Nonverbal Ability Test-2 (NNAT-2)
  - General intelligence measure
  - Designed to measure ability without requirement of knowledge of language
- Measures of Academic Progress (MAP)
  - Computer adaptive testing, designed to eliminate ceiling effect
  - Two subscales: Mathematics and Reading

Subcategories of Interest

- Underrepresented Racial/Ethnic Minority (URM)
  - Defined as minority groups typically underrepresented in gifted education, i.e. African American and Hispanic
- Free/Reduced Lunch (FRL)
  - Includes all students eligible to receive meal subsidy
- English Language Learner (ELL)
  - Student whose primary language is anything other than English
  - Note: This group was too small ($n = 11$) to test on its own, but these students were included in analyses of all students in underrepresented groups
- Underrepresented Status (UR)
  - Student belongs to at least one of the categories of underrepresented students

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Analytic Sample

	Total $n = 279$
Gender	
Boy	153(54.8%)
Girl	126(45.2%)
Underrepresented Minority Status	
Minority	92(33.0%)
Nonminority	187(67.0%)
Grade 2014-2015 school year	
Kindergarten	85(30.5%)
1st Grade	112(40.1%)
2nd Grade	82(29.4%)
English Language Learner (ELL)	
ELL	11(3.9%)
Not ELL	268(96.1%)
Free/Reduced Lunch (FRL)	
FRL	86(30.8%)
Not FRL	143(51.3%)
Underrepresented Status	
Member of Underrepresented group	132(47.3%)
Not a member of Underrepresented group	110(39.4%)

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Methodology

- Inclusion criteria
  - Have data on at least 1 of the 8 dependent variables (GBRS Total and subscales, NNAT-2, MAP Mathematics, MAP Reading)
  - Have demographic data available

- Missing data
  - Listwise deletion by test

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Methodology (cont.)

- Hierarchical Linear Modeling was used to account for the clustered nature of student data

- Separate models were run for each dependent variable and predicted by each of the subgroups of interest (URM, FRL, UR)

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Results: Descriptive Statistics

	Full sample (n = 279)	FRL		UR minority		UR population	
		Yes (n = 86)	No (n = 143)	Yes (n = 92)	No (n = 187)	Yes (n = 132)	No (n = 110)
GBRS Learn	3.54 (.62)	3.48 (.65)	3.60 (.52)	3.53 (.67)	3.54 (.59)	3.50 (.65)	3.61 (.51)
GBRS Apply	3.29 (.67)	3.18 (.70)	3.38 (.60)	3.21 (.71)	3.32 (.65)	3.21 (.68)	3.42 (.59)
GBRS Create	3.22 (.68)	3.19 (.67)	3.22 (.69)	3.22 (.65)	3.21 (.69)	3.19 (.65)	3.25 (.72)
GBRS Motivate	3.18 (.80)	3.12 (.85)	3.30 (.74)	3.19 (.81)	3.18 (.79)	3.14 (.80)	3.30 (.76)
GBRS Total	13.23 (1.85)	12.98 (1.89)	13.51 (1.73)	13.16 (1.82)	13.25 (1.86)	13.04 (1.84)	13.58 (1.73)
NNAT-2	108.55 (12.73)	104.78 (14.23)	110.48 (11.82)	106.00 (18.49)	109.80 (12.20)	106.67 (13.72)	110.86 (11.68)
MPG Mathematics	190.20 (19.51)	186.36 (19.65)	192.90 (20.04)	183.08 (18.49)	193.50 (19.12)	185.60 (18.60)	196.18 (20.03)
MPG Reading	186.74 (18.47)	184.41 (17.71)	190.30 (18.83)	183.86 (17.99)	187.81 (17.64)	184.66 (17.74)	191.29 (18.80)

Results: Fixed Effects for Standardized Tests

Assessment	Subgroup comparison	Coefficient (SE)	t (df)	p
NNAT-2	FRL	-5.53(1.75)*	-3.16(149)	.002
	URM	-4.78(1.79)*	-2.67(152)	.009
	UR	-4.60(1.73)*	-2.66(149)	.009
MPG Math	FRL	-4.05(1.78)*	-2.28(138)	.024
	URM	-4.75(1.96)*	-2.42(140)	.017
	UR	-4.68(1.80)*	-2.59(138)	.011
MPG Reading	FRL	-4.38(2.08)*	-2.11(109)	.038
	URM	-3.34(2.29)	-1.46(111)	.146
	UR	-5.03(2.03)*	-2.48(109)	.015

*Significant at p < .05

Results: Fixed Effects for Teacher Ratings

Assessment	Subgroup comparison	Coefficient (SE)	t (df)	p
GBRS Learn	FRL	-0.14(0.08)	-1.81(142)	.072
	URM	-0.01(0.08)	-0.06(144)	.952
	UR	-0.11(0.08)	-1.43(142)	.154
GBRS Apply	FRL	-0.13(0.08)	-1.59(142)	.114
	URM	-0.11(0.09)	-1.18(144)	.239
	UR	-0.14(0.09)	-1.60(142)	.112
GBRS Create	FRL	-0.01(0.09)	-0.05(142)	.961
	URM	0.04(0.10)	0.42(144)	.673
	UR	-0.12(0.11)	-1.12(142)	.267
GBRS Motivate	FRL	-0.18(0.11)	-1.63(142)	.106
	URM	0.04(0.11)	0.33(144)	.745
	UR	-0.12(.11)	-1.12(142)	.265
GBRS Total	FRL	-0.49(0.25)*	-1.98(142)	.049
	URM	-0.05(0.26)	-0.21(144)	.838
	UR	-0.41(0.25)	-1.67(142)	.097

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Significance

Even in circumstances in which universal screening measures are in place, teachers' involvement in the referral process and giving students opportunities to demonstrate talent provides access for students whose potential might not be otherwise recognized, thereby helping to diversify gifted programming.

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