Journal of Urban Learning, Teaching, and Research (JULTR)

American Educational Research Association

Special Interest Group

Urban Learning, Teaching, & Research (ULTR)

Volume 10, 2014

Journal of Urban Learning, Teaching, and Research

Journal of Urban Learning, Teaching, and Research

Volume 10, 2014

TABLE OF CONTENTS

Journal of Urban Learning, Teaching, and Research

Volume 10, 2014

Published by the American Education Research Association (AERA) Special Interest Group (SIG): Urban Learning, Teaching, and Research (ULTR) and printed by California State University, Los Angeles. For more information about ULTR please visit http://aera-ultr.org/.

The *Journal of Urban Learning, Teaching & Research* (JULTR) provides opportunities for ULTR members to publish scholarly articles in a peer-reviewed, ERIC indexed journal. Recently JULTR was recommended for inclusion in Cabell's Directory of Publishing Opportunities. We strongly encourage our members to take this professional opportunity and share your knowledge about issues in urban education with more than 400 US and international members.

Please carefully review the submission guidelines and selection criteria before you submit your article. All manuscripts are blind-reviewed by 2-3 members of the JULTR Editorial Review Board. The *Journal of Urban Learning, Teaching, and Research* accepts quantitative, qualitative, and mixed method research that addresses issues of urban learning, teaching and research; manuscripts should be 1500-4000 words not including references and submitted in correct APA style to be considered.

Note: Every author and co-author must document current AERA and ULTR SIG membership at submission time. A signed publication authorization statement that verifies that the manuscript is not under consideration at another journal is also required as part of the submission process.

INTRODUCTION TO 2014 ISSUE OF JULTR

Kristien Zenkov, Senior Editor
George Mason University

True to the diversity of the membership of the Urban Learning, Teaching, and Research Special Interest Group, this journal examines what seems to be an ever-wider range of key issues and questions impacting our urban contexts. We speculate that this diversity in our diversity may be the result of the continuing urbanization of the United States. We trust that this issue's articles will inform our teaching and scholarship and inspire new pedagogies and studies.

By way of introduction, we offer just here a few notes about each of the pieces in this edition of *JULTR*. Barrocas and Cramer report on an important study of the achievement of Hispanic middle school students. Elias, White, and Stepney explore the relationship between urban students' socioeconomic status and standardized achievement measures. Gamble and Lambros detail how school-based mental health providers' efforts to offer services to minorities are often limited by cultural factors. Grant explores peer culture and its impact on mathematics learning among high school students. Estrada and Warren report on an action research study that examined the effects of goal-setting strategies in a 12th grade writing classroom. Zaragoza-Petty and Zarate investigate the college outcomes of urban Latinas as they relate to these young adults' math perceptions. Morrison explores the achievement gap and how preservice teachers' notions of social justice pedagogy impact their abilities to address this gap. Gardiner and Salmon examine the theory-practice gap in an urban teacher residency and detail the impact of two interventions intended to bridge this gap. And, finally, Leon reports on a study of "distributed" mentoring for promoting effective teaching in urban high schools.

We are immensely grateful to associate editor Hyunjin Kim, the editorial board of this issue of the journal, and to all who have—once again—tirelessly supported its production.

PLACEMENT AND ACHIEVEMENT OF URBAN HISPANIC MIDDLE SCHOOLERS WITH SPECIFIC LEARNING DISABILITIES

Lisa Barrocas
Miami-Dade County Public Schools

Elizabeth D. Cramer
Florida International University

ABSTRACT

This study examined achievement gains in reading and math for Hispanic middle school students with specific learning disabilities in inclusive versus segregated settings in a large urban school district. The authors report learning gains for students with and without disabilities in inclusive versus segregated settings. Results indicate no significant difference in reading or math achievement in inclusive co-taught classrooms versus segregated settings. Implications for best placement and educational practices in urban middle schools are examined.

Introduction

Culturally and linguistically diverse students in the United States continue to encounter educational deficits at a high rate due to unequally structured learning opportunities (Losen & Skiba, 2011; Townsend, 2002). According to the National Assessment of Educational Progress (NAEP; U.S. Department of Education, 2011a; 2011b), students with disabilities, along with students from culturally and linguistically diverse and/or low-income backgrounds, continue to score well below their White counterparts in all areas tested and across all grade levels. Long-standing performance gaps for students with disabilities, combined with growing demands for social equity, have suggested a need for reconsideration of special education practices (Artiles, 2003; Lipsky, 2005). Schools must assess how educational services are being delivered as well as student placement decisions in order to understand achievement trends for students with disabilities. Since the inception of the inclusion movement, research has suggested that access to the general education curriculum through inclusive programs has several potential educational and social benefits for students with disabilities as well as for their peers without disabilities (e.g., Rea, McLaughlin, & Walther-Thomas, 2002; Saint-Laurent et al., 1998).

Culturally and linguistically diverse students with disabilities are often excluded from the general education classroom (Reid & Knight, 2006). Even with the push for more inclusive practices from the national and state level (Individuals with Disabilities Education Improvement Act of 2004 (IDEIA), 2004; No Child Left Behind Act of 2001 (NCLB), 2002), the presence of diverse students with disabilities included in the general education setting does not guarantee educational equity (Townsend, 2002). Access to the general education curriculum coupled with the competence of educators to teach diverse learners are both key factors in the success of students with disabilities.

IDEIA (2004) mandates both a free and appropriate public education for students with disabilities situated in the least restrictive environment and with access to the general curriculum. The general curriculum is defined as the same curriculum and standards-based instruction that nondisabled peers receive. The purpose of this mandate is to ensure that students with disabilities have access to a demanding curriculum, are held to high expectations, and are not excluded from accountability measures stemming from school reform (Wehmeyer, Lattin, Lapp-Rincker, &

Agran, 2003). This requires that students' Individual Education Plans (IEPs) address the accommodations and modifications that will be used to guarantee involvement *and* progress (defined by content and student performance standards) in the general education curriculum. However, IEPs, which document the specialized services students with disabilities receive, often lack a relationship to the general curriculum or are rarely used as guidelines for standard instruction (Karger, 2004).

The quality of instruction is further called into question when we factor in students with disabilities who also come from culturally and linguistically diverse backgrounds. The overwhelming majority of these students attend high poverty, low-quality schools where there is little or no consideration for race, ethnicity, culture, language, or disability (Blanchett, Klingner, & Harry, 2009). Despite the reform efforts cited in the Elementary and Secondary Education Act, the quality of education in urban schools is generally inferior to that of schools in suburban neighborhoods (Taines, 2012).

Conceptual Framework

Historically, marginalization and exclusion of minority students have been justified by an overlap in the rhetoric of race and disability. It is vital to understand the impact of culture on academic achievement and student placement within school programs, especially when recent trends reveal that students with disabilities are increasingly educated in general education classrooms, while the number receiving instruction in resource rooms or separate classes has decreased substantially (Fore, Hagan-Burke, Burke, Boon, & Smith, 2008). Klingner et al.'s (2005) conceptual framework designed for addressing disproportionate representation of culturally and linguistically diverse students in special education calls for the creation of culturally responsive educational systems that utilize evidence-based interventions that cut across the three interrelated domains of policies, practices, and people.

The "people" of specific learning disability (SLD) programs have shifted from primarily White students to students of color, and students with SLD in urban settings are more likely to be serviced in more restrictive environments than their suburban peers. This suggests that the amount of time a student with a disability spends in the general education setting is highly correlated to the student's race (Ferri & Connor, 2005). Culturally and linguistically diverse students with disabilities are further overrepresented in more restrictive educational environments (Skiba, Poloni-Staudinger, Gallini, Simmons & Feggins-Azziz, 2006). In other words, even within special education, students with disabilities who are also culturally and linguistically diverse are more likely to be served in separate settings.

According to the National Center for Educational Statistics (NCES, 2013), nationally 65.1% of students with SLD spend 80% or more of their school day in the general education classroom. However, simply following inclusion policies and placing students with disabilities in general education classrooms is not enough. Karger and Hitchcock (2003) explain that successful inclusion requires participation and progress in the same meaningful curriculum and content standards that students without disabilities receive. Despite the increase in inclusion rates, there is limited research, particularly at the secondary level, to suggest whether these inclusive placements lead to effective practice or increased academic achievement, particularly for students who are also culturally and linguistically diverse. Of the many issues related to the integration or inclusion of students with disabilities into the general education classrooms, there is none more important than the effects of placement on students' learning (Fore et al., 2008).

The purpose of this study was to determine if placement (inclusive versus non-inclusive classrooms) affect achievement change for urban low socio-economic Hispanic middle school students with and without SLD in reading and math. Middle school settings were chosen because inclusive education is a challenge at the middle school levels (Kozik, Cooney, Vinciguerra, Gradel, & Black, 2009). Implications related to class placement and instructional access will be discussed.

Methods

This study compared performance levels of four middle school student subgroups: (a) students with SLD in inclusive, co-taught settings, (b) students without disabilities in inclusive, co-taught settings, (c) students with SLD in segregated resource room settings, and (d) students without disabilities in segregated general education settings. Each group had been in their respective placements for two consecutive years to determine if placement (inclusive versus non-inclusive classrooms) affects achievement change for urban low socio-economic Hispanic middle school students with and without SLD in reading and math.

Context

This study took place in Miami-Dade County Public Schools, the fourth largest system in the nation, serving a total of 353,152 students: 8% White, Non-Hispanic; 67% Hispanic; 24% Black, Non-Hispanic; and 1% of "other" ethnicity. Spanish is the most commonly spoken home language and 73% of all students receive free/reduced price lunch. The total number of students with a disability in the district is 76,062.

The Florida Comprehensive Assessment Test (FCAT) was used as the indicator for measuring achievement. Scores on the FCAT are reported in terms of scaled scores (range 100-500) and achievement levels. Because it is difficult to determine student growth year-to-year using standard or scale scores, developmental scores are also provided, ranging from 0 to 3000, allowing the tracking of an individual student's achievement progress and growth over time (FDOE, 2004). As student achievement improves (as measured by FCAT scores), the developmental scores rise. If a student regresses from one year to the next, the developmental score decreases. For this study, the change in developmental scale scores were used to measure the mean learning change in both math and reading.

Participants

Two Title I urban middle schools, each 94% Hispanic in overall school population, were examined. Both had been recognized as Schools in Need of Improvement by the state because students with disabilities and English language learners (ELLs) had not made adequate yearly progress on their standardized tests. The participants in this study consisted of 80 seventh and eighth grade students per school for a total of 160 students, each in their respective placements for the two consecutive years of examined data. All students were selected based on similar socio-economic status, ethnicity, disability status, school attendance, and language dominance. Within each school, the population studied consisted of 20 students without disabilities who were enrolled in unique (segregated) general education reading and math classes; 20 students without disabilities who were enrolled in co-taught inclusion reading and math classes; 20 students with

disabilities who were enrolled in co-taught inclusion reading and math classes; and 20 students with disabilities who were enrolled in reading and math unique (segregated) resource classes. (See Tables 1 and 2 for demographics of the schools engaged in this study.)

Table 1
Middle School One Student Demographics

Grade	Caucasian		African Am.		Hispanic		Asian/Indian		Total
	Number	%	Number	%	Number	%	Number	%	Number
6	25	6	1	0	386	93	2	0	414
7	18	5	2	1	360	94	1	0	381
8	17	4	0	0	393	95	0	0	413
Total	60	5	3	1	1139	94	6	0	1208

Table 2
Middle School Two Student Demographics

Grade	Caucasian		African Am.		Hispanic		Asian/Indian		Total
	Number	%	Number	%	Number	%	Number	%	Number
6	9	3	10	3	302	93	5	2	412
7	6	2	8	3	275	94	3	1	292
8	7	2	8	2	308	95	5	2	403
Total	22	2	26	3	885	94	13	1	1107

Research Design and Analysis

Two (reading and math) Three-Way Mixed Analysis of Variance (ANOVAs) were used to compare the amount of between group variance on the students' mean change scores on the FCAT in the areas of reading and mathematics for each group of students (students with or without disabilities), for each grade, and by grade level interactions. Mean scores for the initial and post-test were analyzed using F-tests. The achievement changes were determined for the four middle school student subgroups and relationships were examined by engaging statistical controls for gender, ELL status, and socio-economic status, while controlling for ethnicity. The t-test for two independent samples was used to determine the statistical difference of the mean reading and math scores on the FCAT for students with SLD and their peers without disabilities. An alpha level of 0.05 was used on all tests. The Scheffe post-hoc analysis was applied with an alpha level 0.05 when significance in the ANOVA was found.

Results

Data collected revealed that there was significant difference in placement, grade level, and disability in student achievement in predicting the mean performance level changes in math. Data also revealed that performance varied as a result of disability in mean performance level changes in reading. Segregated versus inclusive settings did not account for statistically significant differences in achievement for students, meaning that the presence or absence of inclusion had no impact on their achievement in either reading or math. Significant differences were found between students with and without disabilities in reading achievement. Statistical differences were also found between grade levels in math.

Figures 1 and 2 depict the findings in terms of mean difference scores per grade level (7th or 8th grade), setting (inclusive or non-inclusive) and disability (student with or without disability). The mean score for students with disabilities in a non-inclusive setting in math was 21.80 with a standard deviation of 273.92 and a mean of 96.48 with a standard deviation of 242.64 for students with disabilities in a co-taught inclusion setting. The mean score for students without disabilities in a non-inclusive setting in math was 66.60 with a standard deviation of 187.68. For students without disabilities in a co-taught inclusive setting in math, the mean was 96.48 with a standard deviation of 242.64. In reading, the mean for students with disabilities in a non-inclusive setting was 159.42 with a standard deviation of 230.40. Students with disabilities in a co-taught inclusive setting had a mean of 168.38 and a standard deviation of 341.20. The mean for students without disabilities in a non-inclusive setting in reading was 37.40 with a standard deviation of 217.190 and a mean of 43.72 with a standard deviation of 208.50 for students in an inclusive setting.

Mean Math Difference Developmental Scores

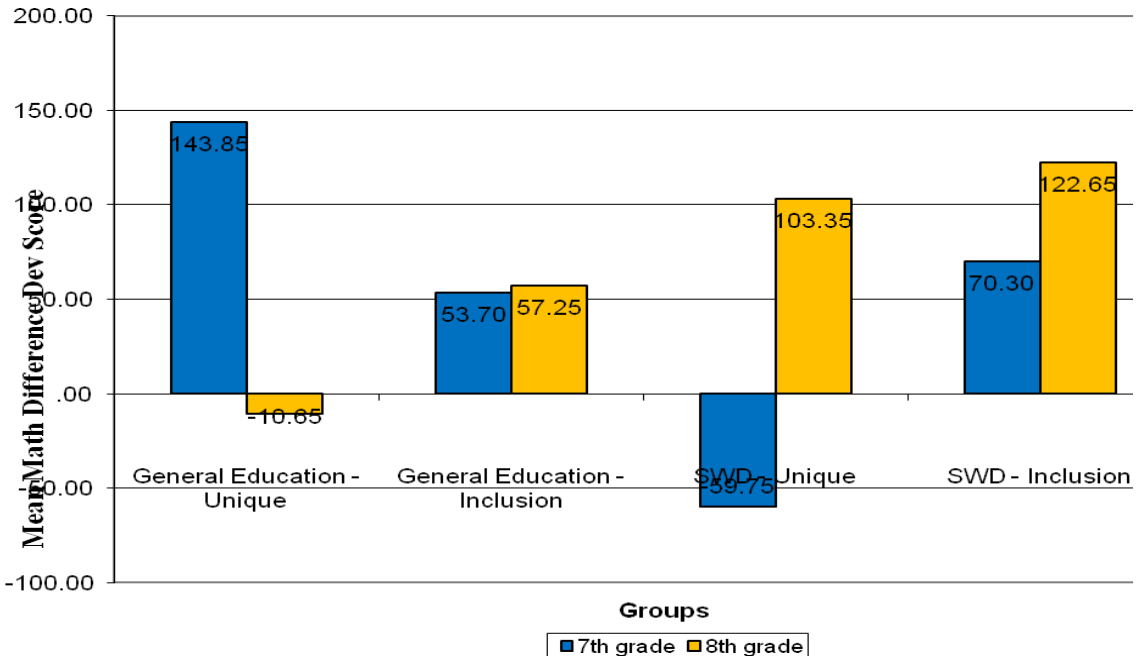


Figure 1. Mean differences in math developmental scores are depcited for each of the four groups of students.

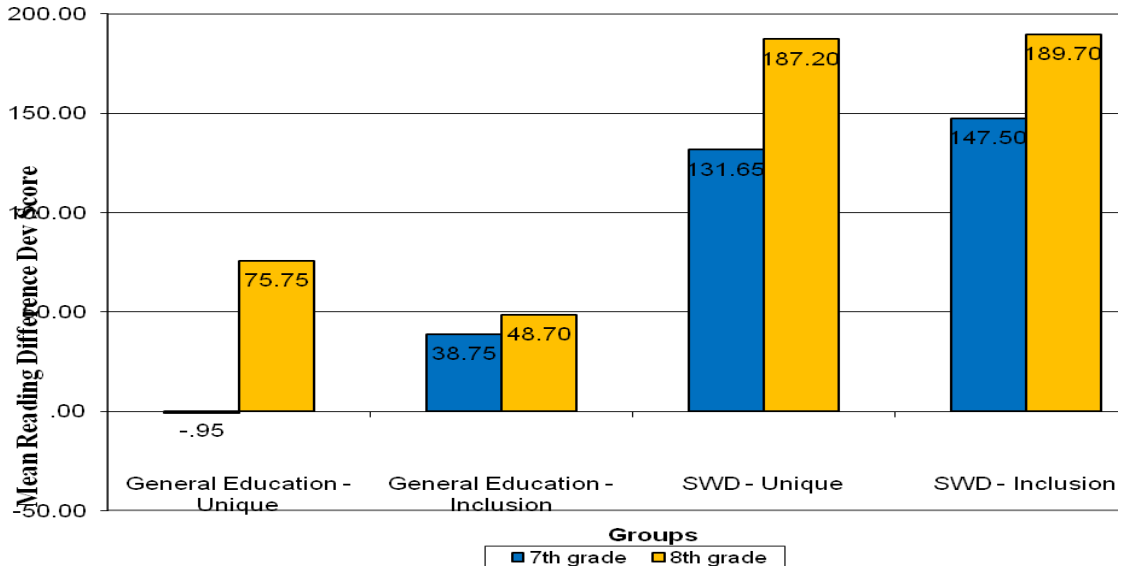


Figure 2. Mean differences in reading developmental scores are depcited for each of the four groups of students.

Tables 3 and 4 contain the independent variables and show the statistical significance of each. The level of significance for the procedure was 0.05. As shown, grade level and disability together accounted for a significant difference in predicting mean performance level changes in math with an obtained p-value of 0.008, as seventh grade students had significantly larger developmental gains than eighth grade students. The results of this analysis on reading difference developmental scores indicates significance that performance varies as a result of disability with an obtained p-value of 0.03, meaning that students without disabilities overall had significantly higher performance. As one of the main goals of this study was to explore relationships among educational placement and performance levels, it is important to note that educational setting (inclusion or non-inclusion), disability (students with or without disability), and grade level (7^{th} grade or 8^{th} grade) accounted for significant variance for students in math with an obtained p-value of 0.049. However, educational setting did not account for significant variance for students with or without disabilities in grades seven or eight in reading when statistically controlling other variables.

Discussion

While the present study did find some significance (i.e., differences in overall achievement between students with and without disabilities and differences between seventh and eighth graders), segregated versus inclusive settings did not account for statistically significant differences in achievement for any of the students, meaning that the presence or absence of inclusion had no impact on their achievement in either reading or math. It is important to note that although this study did not find statistically significant differences in achievement, as the law (IDEIA) requires that students are educated in the least restrictive environment possible, if students can achieve equally in a segregated or inclusive setting, certainly students should be included by default. Although some scholars (e.g., Rea, et al., 2002; Strieker & Logan, 2001) found academic gains associated with inclusive practices, this study did not. The findings of this study are consistent, however, with a similar study of mathematics and reading achievement in

which Redmon (2007) examined whether or not the inclusive classroom improved the achievement scores of elementary students with disabilities on state assessments of reading and mathematics across a three-year period. Redmon did not find a statistically significant difference between students educated in inclusive settings and students educated in resource settings. The findings of this study also parallel the results of McDonnell and colleagues (2003), Haseldon (2004), and Murawski (2006).

Table 3
Tests of Between Subject Effects for Math

Source	Type III Sum of Squares	*Df*	Mean Square	*F*	Sig.
Corrected Model	646396.675[a]	7	92342.382	2.007	.058
Intercept	577681.225	1	577681.225	12.555	.001
INCLUSION	40386.025	1	40386.025	.878	.350
EIGHTH GRADE	10400.625	1	10400.625	.226	.635
Disability	144.400	1	144.400	.003	.955
INCLUSION * EIGHTH GRADE	5593.225	1	5593.225	.122	.728
INCLUSION * Disability	73616.400	1	73616.400	1.600	.208
EIGHTH GRADE * Disability	335622.400	1	335622.400	7.294	.008
INCLUSION * EIGHTH GRADE * Disability	180633.600	1	180633.600	3.926	.049
Total	8218080.000	160			
Corrected Total	7640398.775	159			

a. R Squared = .085 (Adjusted R Squared = .042)

Table 4
Tests of Between Subject Effects for Reading

Source	Type III Sum of Squares	*Df*	Mean Square	*F*	Sig.
Corrected Model	719754.894[a]	7	102822.128	1.557	.152
Intercept	1672196.556	1	1672196.556	25.325	.000
INCLUSION	2333.256	1	2333.256	.035	.851
EIGHTH GRADE	85423.806	1	85423.806	1.294	.257
Disability	608485.556	1	608485.556	9.215	.003
INCLUSION * EIGHTH GRADE	15860.306	1	15860.306	.240	.625
INCLUSION * Disability	68.906	1	68.906	.001	.974
EIGHTH GRADE * Disability	333.506	1	333.506	.005	.943
INCLUSION * EIGHTH GRADE * Disability	7249.556	1	7249.556	.110	.741
Total	1.243E7	160			
Corrected Total	1.076E7	159			

a. R Squared = .067 (Adjusted R Squared = .024)

More specifically, McDonnell and colleagues (2003) found that there were no significant differences among students with disabilities who were enrolled in inclusive classroom settings as compared to students without disabilities within a general classroom setting. Similarly, Haseldon (2004) found no statistically significant differences in passing rates among the full mix of students in four settings, including one co-taught class and two general education classes. Murawski (2006) found no significant differences in academic outcomes for reading assessments for students with disabilities in the co-taught environment as compared to students with disabilities in the resource room. Additionally, the findings of this study are also consistent with an inclusion study (Beam, 2005) that examined the relationship between inclusion and pullout special education programs for special education students with learning disabilities on reading and mathematics scores achievement. As in the previous studies, differences in the present study were not evident between the two models.

Considering the inconsistencies in the existing body of research, further study is needed before conclusions can be drawn between inclusion and achievement, particularly in urban schools. A number of factors may have accounted for the lack of significant difference in the present study including the large amount of variance among students and the high levels of variance found in the large standard deviations. Additionally, the amount of and quality of professional development provided to staff in order to co-teach was quite limited in both settings examined. Another issue to consider is that all of the students in this study were Hispanic, a group that as noted earlier has been underperforming on state assessments. It is possible that the education provided to students in both settings lacked cultural relevance or rigor. Finally, although there is a lack of conclusive achievement data, the social importance of including students cannot be ignored.

It is interesting to note that students with SLD made larger learning gains in reading in both settings than their peers without disabilities in both settings. This underscores the need to rely on measures of progress and change such as developmental scale scores, rather than simply on test averages as a means to assess culturally and linguistically diverse learners and students with disabilities. The heavy reliance on one specific test score as an indicator of achievement is often erroneous, particularly for urban schools. McNeil (2000, p. 730) labeled high-stakes testing as “the new discrimination for minority students,” (p.730) while Hargreaves and Fink (2006) stated that “standardization has become the enemy of diversity” (p. 232). In many schools, common curricula and learning standards as a result of high-stakes testing have institutionalized inequitable systems of academic tracking and uneven student achievement, with minority students being disproportionately represented in lower academic tracks (Oakes, Hunter Quartz, Ryan, & Lipton, 2002).

Results for both math and reading achievement gains and educational placement contrast with research that suggests more inclusive placements are linked to performance on eighth grade state level assessments for students with disabilities (Luster & Durrett, 2003). Although the results contradicted earlier findings, in the absence of strong support for segregated settings, certainly social equity would call for inclusive settings as the norm.

Implications and Conclusion

Federal and state legislation have created explicit expectations for student performance and consequences for schools, teachers, and students that fail to meet expectations. These policy changes have raised the bar for all students and educators in America’s public schools. As such,

educational practitioners need to re-examine training provided for teachers working in inclusive programs and for differentiating to meet the needs of individual learners, particularly within the context of Common Core State Standards. Furthermore, collecting and evaluating data with a variety of assessments during the school year would provide ongoing information on the achievement of all students rather than excessive reliance on one high-stakes test. Student success depends in large part on the individual student's needs. With regards to students with disabilities, the variety of student needs and responsibility to address those needs increases. There are no clear remedies for increasing the achievement of racial/ethical minority students or students with disabilities. Better education requires expanding the knowledge and skills of teachers in order to engage students and create positive, culturally responsive climates of instruction.

Inconsistent and mixed findings across the growing literature base suggest that an examination of the types and quality of instruction occurring in various class placements, particularly in urban schools and with culturally and linguistically diverse learners across grade levels and exceptionalities, is warranted. Frattura and Capper (2006) developed an integrated comprehensive services model that includes four components: (a) focusing on equity, (b) establishing equitable structures, (c) implementing change, and (d) providing access to high-quality teaching and learning. The goal of this model is to prevent student failure and this is accomplished by building teacher capacity to reach the diversity of students and creatively plan to meet diverse and individualized needs. It is critical that as we shift toward a culture of common curricula and high accountability standards, we provide necessary supports to teachers and to schools to implement such structures for all learners. Educational researchers and practitioners alike need to re-examine the preparedness of teachers and the adequacy of instruction existing in urban inclusive class placements. In view of the findings of this study, equity of access to an inclusive education should be the norm for students with and without disabilities alike.

References

Artiles, A. J. (2003). Special education's changing identity: Paradoxes and dilemmas in view of culture and space. *Harvard Educational Review, 73*(2), 164-202.

Beam, A. P. (2005). *The analysis of inclusion rates versus pullout at the elementary level as determined by selected variables.* Ed.D. dissertation, The George Washington University, United States- District of Columbia, Retrieved November 7, 2010, from ProQuest Digital Dissertations database. (Publication No. AAT 3161573).

Blanchett, W. J., Klingner, J. K., & Harry, B. (2009). The intersection of race, culture, language, and disability: Implications for urban education. *Urban Education, 44*(4), 389-409.

Ferri, B. A, & Connor, D. J. (2005). Tools of exclusion: Race, disability, and (re)segregated education. *Teachers College Record, 107*(3), 453–474.

Florida Department of Education, (2004). *Assessment and accountability briefing book by the Florida Department of Education*. Retrieved July16, 2009, from http://fcat.fldoe.org/pdf/fcataabb.pdf

Fore, C., III, Hagan-Burke, S., Burke, M., Boon, R.T., & Smith, S. (2008). Academic achievement and class placement in high school: Do students with learning disabilities achieve more in one class placement than another? *Education & Treatment of Children, 31*(1), 55-72.

Frattura, E., & Capper, C. A. (2006). Segregated programs versus integrated comprehensive service delivery for all learners. *Remedial Special Education, 27*(6), 355–364.

Hargreaves, A., & Fink, D. (2006) *Sustainable leadership*. San Francisco: Jossey-Bass.

Haselden, K. G. (2004). Effects of co-teaching on the biology achievement of typical and at-risk students educated in secondary inclusion settings. *Dissertation Abstracts International, 65*(01). (ATT 3119816)

Individuals With Disabilities Education Improvement Act of 2004 (IDEA), PL 108-446, 118 Stat. 2647 (2004). [Amending 20 U.S.C. 1400 et seq.].

Karger, J. (2004). Access to the general curriculum for students with disabilities: The role of the IEP. Wakefield, MA: National Center on Accessing the General Curriculum. Retrieved from http://www.cast.org/publications/ncac/ncac_iep.html

Karger, J., & Hitchcock, C. (2003) *Access to the general curriculum for students with disabilities: A brief for parents and teachers*. Wakefield, MA: National Center on Accessing the General Education Curriculum.

Klingner, J. K., Artiles, A. J., Kozleski, E., Harry, B., Zion, S., Tate, W., Duran, G. Z., & Riley, D. (2005). Addressing the disproportionate representation of culturally and linguistically diverse students in special education through culturally responsive educational systems. *Education Policy Analysis Archives, 13*(38) Retrieved from www.csa.com

Kozik, P. L., Cooney, B., Vinciguerra, S., Gradel, K., & Black, J. (2009). Promoting inclusion in secondary schools through appreciative inquiry. *American Secondary Education, 38*(1), 77-91.

Lipsky, D. (2005). Are we there yet? *Learning Disabilities Quarterly, 28*, 156-158.

Losen, D. J., & Skiba, R. (2011). *Suspended education: Urban middle schools in crisis.* Montgomery, AL: Southern Poverty Law Center.

Luster, J. N., & Durrett, J. (2003, November). *Does educational placement matter in the performance of students with disabilities?* Paper presented at the Annual Meeting of MSERA, Biloxi, MS.

McDonnell, J., Thorson, N., Disher, S., Mathot-Buckner, C., Mendel, J., & Ray, L. (2003). The achievement of students with developmental disabilities and their peers without disabilities in inclusive settings: An exploratory study. *Education and Treatment of Children, 26*(3), 224-236.

McNeil, L. (2000). Creating new inequalities: Contradictions of reform. *Phi Delta Kappan*, *81*(10), 728-734. (This in text citation is listed as 2002)

Murawski, W., (2006). Introduction to Special Issue. *Intervention in School and Clinic*, *40*(5), 284-291.

National Center for Education Statistics (2011a). The Nation's report card: Mathematics 2011(NCES 2012–458). Institute of Education Sciences, U.S. Department of Education, Washington, D.C.

National Center for Education Statistics (2011b). The Nation's report card: Reading 2011(NCES 2012–457). Institute of Education Sciences, U.S. Department of Education, Washington, D.C.

National Center for Education Statistics (2013). Retrieved April 17, 2014, from https://nces.ed.gov/fastfacts/display.asp?id=59

No Child Left Behind Act of 2001. PL 107-220 (2001). Retrieved April 7, 2009, from http://www.gpo.gov

Oakes, J., Quartz, K. H., Ryan, S., & Lipton, M. (2002). Becoming good American schools: The

struggle for civic virtue in education reform

Rea, P., McLaughlin, V., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs. *Exceptional Children, 68*(2), 203-222.

Redmon, B.G. (2007). *The impact of full inclusion on the academic achievement of students with disabilities in grades 3 to 6.* Ed.D. dissertation, Tennessee State University, United States – Tennessee. Retrieved November 2, 2007, from ProQuest Digital Dissertation database. (Publication No. AAT 3267063).

Reid, D. K., & Knight, M. G. (2006). Disability justifies exclusion of minority students: A critical history grounded in disability studies. *Educational Researcher, 35*(6), 18–23.

Skiba, R. J., Poloni-Staudinger, L., Gallini, S., Simmons, A. B., & Feggins-Azziz, R. (2006). Disparate access: The disproportionality of African American students with disabilities across educational environments. *Exceptional Children, 72*(4), 411–424.

Strieker, T., & Logan, K. (2001). Everybody wins. *The State Education Standard*, 26-31.

Taines, C. (2012). Education or social reform? Students inform the debate over improving urban schools. *Education and Urban Society, 44*(3), 247-273.

Townsend, B. L. (2002). "Testing while Black": Standards-based school reform and African American learners. *Remedial and Special Education, 23*(4), 222–230.

Wehmeyer, M. L., Lattin, D. L., Lapp-Rincker, G., & Agran, M. (2003). Access to the general curriculum of middle school students with mental retardation: An observational study. *Remedial and Special Education*, *24(5)*, 262–272.

SURMOUNTING THE CHALLENGES OF IMPROVING ACADEMIC PERFORMANCE: CLOSING THE ACHIEVEMENT GAP THROUGH SOCIAL-EMOTIONAL AND CHARACTER DEVELOPMENT

Maurice J. Elias
Rutgers University

Gwyne White
Rutgers University

Cesalie Stepney
Rutgers University

ABSTRACT

While educators and policy makers have an intuitive understanding of the influence of socioeconomic factors and race on student achievement, these factors make the current emphasis on standardized test scores as a primary criterion for evaluating schools and teachers indefensible and ineffective. The research presented illustrates the limits of obtaining test score change and the impact of socioeconomic status and race on standardized achievement measures. Intentional efforts at generating a "success" mindset in students by improving school culture and climate and students' social-emotional and character development are viable steps to be taken alongside reductions of socioeconomic inequities. Indeed, these directions become even more important, given the long timeframe that such reductions are likely to require.

Introduction

Why is it so difficult to create sustained turnaround in troubled schools? Despite the best efforts of administrators, teachers, and staff, troubled schools often remain troubled schools. Most typically defined as having persistent histories of academic failure (usually a minimum of two consecutive years), troubled schools also tend to be schools characterized by relatively high rates of violence, relatively poor attendance, and high dropout; they are most typically found in high-poverty areas (Education Week, 2014; Hurlburt, Therriault, & Le Floch, 2012). Although a difficult task, trying to understand the resistance of these schools to intervention efforts is necessary in order to better assist these schools in both making and sustaining changes. Our recently completed research project looking at four hundred and eighty three schools across the state of New Jersey may provide some insights into this problem. We found a number of real world challenges embedded within any efforts at improving test scores. However, inherent in these issues are also potential solutions.

We have watched and assisted as dedicated school administrators and teachers have devoted extraordinary time and resources to improve students' academic performance on standardized tests. In preparing students for college and career readiness, school administrators must confront two all too familiar achievement gaps. The first is the differential performance of students of lower socioeconomic status (SES) relative to their peers of higher SES; the second is that of Black and Latino students relative to their White peers. While these challenges may be well known, the implications for school administrators of low-performing districts and for educational policy, have not been sufficiently explicated. Proceeding with conventional wisdom is highly likely to lead to results that are ineffective or, at best, short-lived.

The statistics involved are well known. In the United States, an estimated 22% of all children live in poverty with ethnic minorities disproportionately represented. African American children represent 14% of all children in the U.S., but constitute 26% of children living in

poverty, and likewise, while children of Hispanic origin represent 23% of all children, they make up about 32% of children living below the poverty line (U.S. Census Bureau, 2011). One of the purposes of the 2001 No Child Left Behind (NCLB) Act was to address the academic underperformance of youth who are from lower SES backgrounds and/or are ethnic minorities relative to their middle-class, non-ethnic minority counterparts (NCLB, 2002). NCLB and other such initiatives measure success by relying on standardized test scores.

However, there is legitimate concern that the relationship between SES, ethnicity, and achievement scores presents a serious dilemma when attempting to improve these scores. How do you improve the test scores of disadvantaged groups when it is their disadvantage that is influencing their performance on standardized tests? Educators are faced with fighting against a larger system of racial and economic issues that are rooted in a deep-seated history. But more than that, as the present study illustrates, there are statistical challenges that await well-intentioned efforts at turning around troubled schools. These challenges make it difficult to accurately measure intervention success using the typical array of standardized test scores.

In studies that have explored this gap from a wider perspective, the defining feature is typically the socioeconomic resources of those communities (Rothstein, 2004; Rumberger & Palardy, 2005). Socioeconomic status and ethnicity frequently are found to be interrelated, as students of Hispanic and Black ethnicity are often found in segregated, high-poverty schools with limited resources (Orfield & Lee, 2004).

The Current Study

School-level factors such as classroom size (Ehrenberg, Brewer, Gamoran, & Willms, 2001), school size (Leithwood & Jantzi, 2009) and teacher mobility (Borman & Dowling, 2008) have been shown to influence academic outcomes. However, while these factors are frequent targets of policy aimed at improving academics, the impact of a school's socioeconomic status and racial make-up on standardized test scores represent a metric by which to measure the success of such policies. If the NCLB Act has had success, then a school's percent of students passing a standard achievement test should be impacted more by these mutable factors rather than the socio-economic and racial make-up of the school - or at least we would hope to see an improvement over the 1966 data from the Coleman Report (Coleman et al., 1966). The purpose of the current study is to detail the independent influence of socioeconomic status and race, have on achievement scores. The results indicated that SES and race continue to impact school level test scores above the other predictive school level factors of class size, school size, and teacher mobility.

Methods

Setting and Participants

The data presented here utilizes the school as the unit of analysis, thus all factors examined are at the school level rather than the individual, mimicking NCLB's practice of evaluating schools. The data is from the 2009-2010 academic school year for 144 schools which included an 8th grade but not a 3rd grade or 9th grade (referred to as middle school). The majority of schools reflected grades 6-8 (see Table 1 for school demographic factors).

Table 1
School Demographic Factors

	Middle School Sample (n = 144)		
	M	*SD*	Range
Total Enrollment	701.08	290.83	203 - 1879
Average Class Size	19.52	3.72	6.30 – 27.40
Faculty Mobility	5.04	10.57	0.00 – 109.40
% Free or Reduced Lunch	24.40	23.04	0.00 – 86.42
% Female	48.49	2.40	41.67 – 55.46
% White	60.12	27.73	0.11 – 95.86
% Black	14.58	20.06	0.00 – 95.18
% Hispanic	15.55	17.59	0.00 – 95.15
% Asian	8.73	9.51	0.00 – 44.96
% Proficient and Advanced Proficient on Language	85.34	13.12	23.90 – 100.00
% Proficient and Advanced Proficient on Math	71.77	16.04	13.10 – 97.60

Measures

All variables came from two publically available data sources: 1) The New Jersey Department of Education (NJDOE) School Report Cards online database (State of New Jersey Department of Education, 2010) or 2) the Institute of Education Sciences (IES) of the National Center for Education Statistics (NCES) public school online database (Institute of Education Sciences, 2010). All predictor variables were centered by grade level to reduce multicollinearity. NJDOE variables included and analyzed for this study were total enrollment of students, average class size, faculty mobility rate, and standardized achievement tests. NCES variables included and analyzed for this study were free and reduced lunch status, race/ethnicity proportions, and male/female proportions for each school.

Public school students in New Jersey take the NJ Assessment of Skills and Knowledge (NJASK) each year and the current study reflects data from 8th graders tested in April-May, 2010. The NAEP, described as a "gold standard" for monitoring the educational progress of American students (Jones, Olkin, & American Educational Research Association, 2004), and the New Jersey state assessments differ in how some of the content and skills are measured as well as the method used for setting performance standards (i.e., the cut points for determining achievement levels). However, it is generally acceptable to consider the New Jersey state rating of "proficient" as comparable to a NAEP "basic" rating (U.S. Department of Education, Institute of Education Sciences, & National Center for Education Statistics, 2010). Finally, while these tests yield scaled scores for each individual taking them, the data presented here reflect school-level percentage of students who were proficient or advanced proficient. The criterion of "proficient" was used because this qualitative label is used to determine accolades and sanctions by the public and the government.

Data Analysis

Schools used in this study were part of the Developing Safe and Civil Schools Project (DSACS) or were identified as matched controls for a DSACS school, based on demographic variables including district, size, grade configuration, and other factors. The DSACS project was a publically funded, voluntary initiative aimed at improving school climate. The current study utilized the existing database developed for this project, but does not assess the DSACS project itself. All data were downloaded from the publically-available New Jersey Department of Education (NJDOE) School Report Cards online database (State of New Jersey Department of Education, 2010) and Institute of Education Sciences (IES) of the National Center for Education Statistics (NCES) public school online database (Institute of Education Sciences, 2010) for the school year 2009-2010. Schools were included in the study if they met grade-level inclusionary criteria and were not missing any variables of interest. Data were analyzed using SPSS version 20.

Results

Hierarchical Regression Analysis Predicting School Language Proficiency

To test the hypothesis that the percentage of students in a school who are at the proficient or advanced proficient level on the NJ state language test is a function of the percentage of Black and Hispanic students after controlling for other school demographic factors, a hierarchical regression analysis was performed for each school type. Percent female, faculty mobility, total enrollment, and average class size were entered first, followed by the percentage of students receiving free or reduced lunch, and then the percentage of students who were Black and the percentage of students of Hispanic origin, independently; in the last step, interaction terms for percentage of students receiving free or reduced lunch by each of the two racial/ethnic groups were entered to help determine whether the relationship between race and test scores is moderated by SES. All continuous predictor variables were centered to reduce multicollinearity for hierarchical regression. All percent variables were coded on a 0.00-100.00% scale, so a one unit change on any of the predictor variables reflects a one unit change in the percentage of students in a school who are at the proficient or advanced proficient level on the language test.

For this study, we present data from middle schools, as these schools represented the modal trend shown in the data across school types. As shown in Table 2, the school demographic factors in Step 1 accounted for 17% of the variance in language proficiency. SES added an additional 58% of variance explained in Step 2 (R^2 change = 0.58, $F = 319.60$, $p < .001$). The addition of percent Black and Hispanic students in Step 3 increased the variance explained from 75% to 81% ($F = 20.90$, $p < .001$). Furthermore, the addition of the interaction between race and SES increased the variance explained by an additional 4% ($F = 16.95$, $p < .001$).

In the final model, the faculty mobility rate (b = -.12, $p = 0.008$), the percentage of students receiving free or reduced lunch (b = -0.16, $p = .001$), the percentage of students of Hispanic origin (b = -0.26, $p = .001$), and the percentage of Black students (b = -.13, $p = .003$) were all significant predictors of language proficiency, holding all other variables constant. Specifically looking at the impact of race, with every 10% increase in the percentage of students of Hispanic or Black ethnicity in a school, on average there is a 2.60% or 1.30% decrease, respectively, in the percentage of students who are proficient on the language test. In addition,

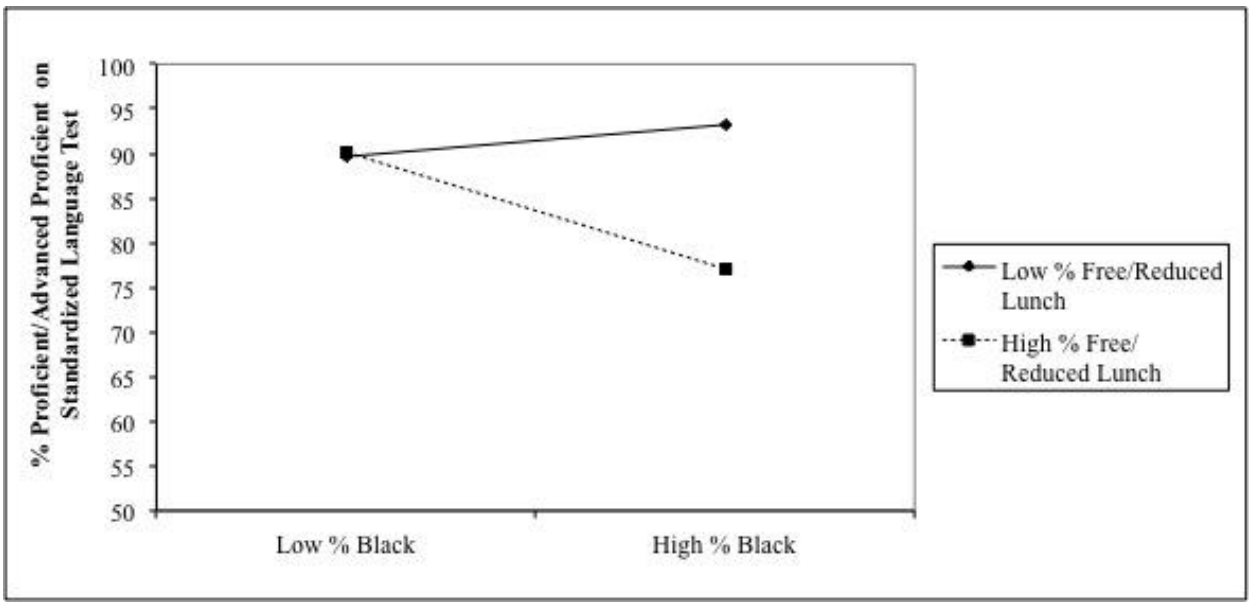
the interaction between the percentage of Black students and free/reduced lunch status was significant (b =-0.01, p < .001), suggesting that the relationship between the percentage of Black students and language test proficiency is significantly and negatively moderated by the percentage of students receiving free or reduced lunch. The higher the percentage of students receiving free or reduced lunch in a school, the more negative the relationship (or slope) between the percentage of Black students and language proficiency (Figure 1). The interaction between the percentage of Hispanic students by free/reduced lunch status was not significant.

Table 2
Summary of Hierarchical Regression Analysis Predicting School Language Proficiency (% of school at the proficient or advanced proficient level) for Middle Schools (n = 144)

	Model 1			Model 2			Model 3			Model 4		
	B	SE B	B	B	SE B	β	B	SE B	β	B	SE B	β
Constant	**84.79*** **	**1.02**		**85.61*** **	**.56**		**85.62*** **	**.50**		**87.69*** **	**.65**	
% Female	.43	.43	.08	.005	.24	.001	.08	.21	.01	.03	.19	.005
Faculty Mobility	**-.21**	**.10**	**-.17***	**-.19**	**.05**	**-.15****	**-.18**	**.05**	**-.14*** **	**-.12**	**.04**	**-.10****
Total Enrollment	.002	.004	.04	-.001	.002	-.03	.00	.002	.004	-.002	.002	-.04
Average Class Size	**1.23**	**.28**	**.35*** **	.07	.17	.02	.11	.15	.03	.14	.14	.041
% Free or Reduced Lunch				**-.48**	**.03**	**-.84*** **	**-.21**	**.05**	**-.37*** **	**-.16**	**.05**	**-.28****
% Black							**-.26**	**.04**	**-.39*** **	**-.13**	**.04**	**-.20****
% Hispanic							**-.23**	**.05**	**-.30*** **	**-.26**	**.07**	**-.35*** **
% Black x % Free/ Reduced Lunch										**-.006**	**.001**	**-.32*** **
% Hispanic x % Free/ Reduced Lunch										-.001	.001	-.06
R^2		0.17			0.75			0.81			0.85	
Change in R^2		**0.17**			**0.58**			**0.06**			**0.04**	
F for R^2 change		**7.21*** **			**319.60*** **			**20.90*** **			**16.95*** **	

Note. All predictor variables are centered; *p < .05, **p < .01, ***p < .001

It is important to note that race/ethnicity, without SES interaction, did not become significant until middle school. And while elementary school test scores were significantly affected by percent free or reduced lunch, this effect was more significant in language than math. However, by high school, the impact of the racial make-up of the school became highly significant, particularly in math achievement. Additionally, for middle schools and high schools, SES was only a significant moderator between race/ethnicity and test proficiency when looking at the percentage of Black students in school, and generally not with students of Hispanic origins.



Note. All predictor variables were centered.

Figure 1. Percentage of Black Students and Percentage of Students Receiving Free and Reduced Lunch as Predictors of the Percentage of Students at the Proficient or Advanced Proficient Level on the Standardized Language Test in Middle Schools (n = 144)

Discussion

Consistent with prior research (Campbell, Hambo, & Mazzeo, 1999; Campbell, Pungello, Ramey, Miller, & Burchinal, 2001;), the current study found that race/ethnicity accounts for a significant and meaningful amount of variance in students' test scores. This significance was over and above a highly significant amount accounted for by school demographic factors and SES. Additionally, results indicated that SES moderated the relationship between race and test scores, and that the interaction between race and SES gains significance by 8th grade, representing a medium effect size increment in language proficiency test scores. Our data also suggest that the interaction effect strengthens in high school. Clearly, students in schools with greater Black and Latino populations experience an especially challenging educational climate. As well, ethnicity and the interaction between it and SES significantly explained additional variability in test scores for the high schools in our sample, suggesting that something else is going on beyond the impact of SES on scores.

Specifically, we found that the effect of ethnic make-up on school test scores was stronger in schools with higher rates of students receiving free or reduced lunch. This, in essence, indicates that high poverty, high minority population schools face a particular constellation of factors that when combined, make showing progress in substantial academic test score performance extremely difficult. Given this, questions can clearly be raised in education policy around the appropriateness of the emphasis on high-stakes testing in the United States, and particularly doing so on the kinds of assessments that are currently administered. Further, the way in which test scores are used in evaluating teachers from schools in low SES areas with a relatively high percentage of students of Black and Hispanic ethnicity requires considerable rethinking.

Reversing the Inequities for which Test Scores are a Proxy

From the data, but equally so from our reading of the literature and our experience working in diverse schools over many years, we suspect that certain mechanisms are likely to be operating at the intersection of ethnicity and SES. It is these mechanisms that can and must be effectively targeted for change. At the individual level, recent work has identified the pervasive impact of racial microaggressions, the "subtle insults (verbal, nonverbal, and/or visual) directed toward racial minorities, often automatically or unconsciously"(Solorzano, Ceja, & Yosso, 2000) that are hidden in everyday interactions and widen the gap of racial realities. The cumulative nature of these innocuous expressions is detrimental to racial minorities as, inherent in the ambiguous nature of the aggressions, the interaction causes stress which then impairs performance in multitude of settings (Omi, 1994; Sue et al., 2007). Indeed, studies have found that interpersonal racial oppression has been found to harm the mental well-being and academic performance of minority students (Rovai, Gallien Jr, & Wighting, 2005).

These mechanisms are relevant not just at the individual level but within the context of the school. While the current study explored only the school level impact of SES, a large scale study of Austrian students found that as the mean SES of a school increased, there were consistent increases in students' academic achievement, and that this relationship was similar for all students regardless of their individual SES (Perry & McConney, 2010). Further, in the larger context of schools, there is the internalized oppression that results when children are in an environment in which they feel devalued and inferior and perceive little or no likelihood of their status changing (Garcia Coll et al., 1996; Kloos et al., 2012). Under such circumstances, children are likely to experience a mindset of academic defeat, rather than the tenacity or perseverance that has been empirically linked to their success (Blackwell, Trzesniewski, & Dweck, 2007; Farrington et al., 2012). What appears to happen, as reported by Ou and Reynolds (2008) in the Chicago schools, is that students engage in a vicious cycle of lowering academic aspirations, which eventually, if indirectly, leads to lower employment expectations, lowered health and life aspirations, and the informal enforcement of anti-achievement norms and stereotype threat that serves as a self-fulfilling prophecy for those who attempt to break out of the pattern. Alternatively, those students who have not internalized oppression are more likely to transfer to another—hopefully more positive—school environment, in the unusual case that their external circumstances allow.

Additionally, perceptions of the culture and climate within the school may provide a partial explanation for the achievement and discipline gaps across ethnicities. This is because ethnic minority students have been found to perceive their environment as less safe and report lower levels of achievement motivation than White youths, even after controlling for classroom- and school-level factors (Koth, Bradshaw, & Leaf, 2008). It is not a reasonable expectation for ethnic minority youth who do not feel safe or valued in school to sustain a strong commitment to learning, particularly when also aware of the long-standing gap between themselves and their White, advantaged peers. Furthermore, if the adults, whose professional role is to educate them, accept them through open school doors for 180 days each school year but cannot provide a welcoming and supportive environment, or at least keep them safe, what can these students reasonably expect from the wider society?

Research is showing with increasing clarity that the school environments within which students learn exercise great influence on them (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). Children ultimately are hopeful; indeed, the elementary school-level data

from our study do not show the same level of achievement gap, and there is reason to believe that a supportive school environment within which students can learn core social, emotional, and academic skills may be a catalyst for a true turnaround process (Cohen & Elias, 2011; Zins, Weissberg, Wang, & Walberg, 2004).

Social and emotional learning (SEL) can be defined as the capacity to recognize and manage emotions, solve problems effectively, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively (Elias et al., 1997). It follows from this definition that social and emotional *competencies* are a combination of behaviors, cognitions, and emotions that can be seen in the effective application of the knowledge, attitudes, and skills necessary to recognize and manage emotions; have and express care and concern for others; ability to make responsible decisions; establish positive relationships; and ability to capably handle challenging situations (Zins & Elias, 2006).

It is difficult to imagine a classroom, or any school context, that can be engaging and productive in the absence of students' possession of these competencies. But these capacities cannot be learned informally or haphazardly. They must be learned systematically and in schools with climates and cultures that value student competence in areas other than academic content (Cohen & Elias, 2011). These skills are learned best and most deeply when students are in collaboration with their teachers and learning cooperatively with their peers. Schools attempting a turnaround, or otherwise seeking to better their students' academic performance, must realize that academic development cannot be fostered unless students' social-emotional and character development is also fostered (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). This is especially true of schools attempting to implement the Common Core in contexts with poor histories of academic success (Elias, 2014).

Recommendation for Policy and Practice

To have a chance of countering the powerful convergence of SES and ethnicity on disadvantaged learners, school administrators must support evidence-based and continuous interventions. These interventions can and should work to improve the culture and climate of schools and address students' sense of meaning and purpose, voice and value, and the social, emotional, and character competencies needed to enact the opportunities students are given. Students must be actively involved in shaping policy. This is true for the range of school-based interventions, from service learning, to cooperative learning, to student involvement in designing classroom and school rules addressing school problems such as harassment, intimidation and bullying, drugs and alcohol, obesity, dropout, or lack of academic support at home. This involvement builds a sense of civic participation that can be a source of empowerment—a sense of "I can"—upon which academic skills may be built.

This is not a small point; if students do not believe they can succeed or that it benefits them to succeed, it will not matter how much the curriculum is revised and assessments are changed (Farrington et al., 2012). There must be "both/and" thinking in our educational policy and practice. The urgency of improving students' academic skills does not automatically mean educators can or should focus all of their efforts on those skills. Indeed, that is a prescription for failure because we lead our youth into 180 days each school year of immersion in their deficiencies. How can this be a source of positive motivation and turnaround?

Our findings are sobering, and do not absolve those in power and those who make policy from

reducing the socioeconomic inequalities in our society, creating more and more visible pathways to success for our most disadvantaged youth, and rethinking an inherently unfair testing regimen. But for educators now, particularly those in leadership roles, our findings also point to a set of large and deeply entrenched obstacles to students' academic success. These obstacles cannot be blasted through with the usual tools of academic remediation. They must be eroded persistently through a nurturing school culture and climate, and then bypassed by providing a solid emphasis on social-emotional learning and character development that will provide students with the fortitude and grit to face and surmount the tests of life.

References

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246-263.

Borman, G. D., & Dowling, N. M. (2008). Teacher attrition and retention: A meta-analytic and narrative review of the research. *Review of Educational Research, 78*(3), 367-409.

Campbell, F., Pungello, E., Ramey, C., Miller, J., & Burchinal, M. (2001). The development of cognitive and academic abilities: Growth curves from an early childhood. *Developmental Psychology, 2*, 231-247.

Campbell, J. R., Hambo, C. M., & Mazzeo, J. (1999). *NAEP 1999 trends in academic progress: Three decades of student performance*. Washington, DC: National Center for Education Statistics.

Cohen, J., & Elias, M. J. (2011). *School climate: Building safe, supportive, and engaging classrooms and schools*. Port Chester, NY: National Professional Resources.

Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F. D., & York, R. (1966). *Equality of educational opportunity*. Washington, DC: U.S. Department of Health, Education & Welfare; Office of Education.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.

Report on Turnaround Schools (2014).

Ehrenberg, R. G., Brewer, D. J., Gamoran, A., & Willms, J. D. (2001). Class size and student achievement. *Psychological Science in the Public Interest*, 1-30.

Elias, M. J. (2014). Let's put caring into the Common Core: Promoting the social-emotional competence of our students is the first step toward Common Core mastery. *NJEA Review*. http://www.njea.org/news-and-publications/njea-review/feb-2014/common-core

Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., . . . Shriver, T. P. (1997). *Promoting social and emotional learning: Guidelines for educators*. Alexandria, VA: Association for Supervision and Curriculum Development.

Farrington, C., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T., Johnson, D., & Beechum, N. (2012). Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance. Chicago, IL: University of Chicago Consortium on Chicago School Research.

Garcia Coll, C., Lamberty, G., Jenkins, R., McAdoo, H., Crnic, K., Wasik, B., & Vazquez Garcia, H. (1996). An integrativemodel for the study of developmental competencies in minority children. *Child Development, 67*, 1891-1914.

Hurlburt, S., Therriault, S. B., & Le Floch, K. C. (2012). School Improvement Grants: Analyses of State Applications and Eligible and Awarded Schools. *National Center for Education Evaluation and Regional Assistance*.

Jones, L. V., Olkin, I., & American Educational Research Association. (2004). The nation's report card: evolution and perspectives. Bloomington, IN: Phi Delta Kappa Educational Foundation in cooperation with the American Educational Research Association.

Kloos, B., Hill, J., Thomas, E., Wandersman, A., Elias, M. J., & Dalton, J. H. (2012). *Community psychology: Linking individuals and communities* (3rd ed.). Belmont, CA: Wadsworth/Cengage.

Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology, 100*(1), 96-104.

Leithwood, K., & Jantzi, D. (2009). A review of empirical evidence about school size effects: A policy perspective. *Review of Educational Research, 79*(1), 464-490.

No Child Left Behind (NCLB). (2002). *No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115 Stat. 1425*.

Omi, M. (1994). *Racial Formation in the United States: From the 1960s to the 1990s*: Psychology Press.

Orfield, G., & Lee, C. (2004). *Brown at 50: King's dream or Plessy's nightmare?* Cambridge, MA: Civil Rights Project, Harvard University.

Ou, S., & Reynolds, A. J. (2008). Predictors of educational attainment in the Chicago Longitudinal Study. *School Psychology Quarterly, 23*(2), 199-229.

Perry, L., & McConney, A. (2010). Does the SES of the school matter? An examination of socioeconomic status and student achievement using PISA 2003. *The Teachers College Record, 112*(4), 1137-1162.

Rothstein, R. (2004). *Class and schools: Using social, economic, and educational reform to close the black-white achievement gap*. Washington, D.C.: Economic Policy Institute.

Rovai, A. P., Gallien Jr, L. B., & Wighting, M. J. (2005). Cultural and interpersonal factors affecting African American academic performance in higher education: A review and synthesis of the research literature. *The Journal of Negro Education*, 359-370.

Rumberger, R., & Palardy, G. (2005). Does segregation still matter? The impact of student composition on academic achievement in high school. *The Teachers College Record, 107*(9), 1999-2045.

Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 60-73.

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American psychologist, 62*(4), 271-286.

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research, 83*(3), 357-385.

U.S. Census Bureau. (2011). *Child poverty in the United States 2009 and 2010: Selected race groups and Hispanic origin*. Washington, DC: Government Printing Office.

U.S. Department of Education, Institute of Education Sciences, & National Center fo Education Statistics. (2010). *National Assessment of Educational Progress (NAEP) 2005, 2007, and 2009 Mathematcis Assessments*. Washington, DC: Author.

Zins, J. E., & Elias, M. J. (2006). Social and emotional learning. In G. G. Bear & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 1-13). Bethesda, MD: National Association of School Psychologists.

Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg , H. J., (Eds). (2004). *Building academic success through social and emotional learning: What does the research say?* New York, NY: Teachers College Press.

PROVIDER PERSPECTIVES ON SCHOOL-BASED MENTAL HEALTH FOR URBAN MINORITY YOUTH: ACCESS AND SERVICES

Brandon E. Gamble
California State University Long Beach

Katina M. Lambros
San Diego State University

ABSTRACT

This article provides results from a qualitative study on the efforts of school-based mental health providers (SBMHPs) who serve students in urban, suburban, and ethnically diverse settings to help families access quality mental health services. School-based mental health plays a key role in the provision of direct and indirect intervention services to support life skills and social-emotional development. A cohort of school psychology graduate trainees enrolled in a counseling course conducted 39 semi-structured interviews with school based mental-health providers (i.e., 36 schools psychologists, two therapists, and one school counselor). Findings indicate SBMHP's efforts to promote minority access are often hindered by culturally-related factors, and that more careful data-based tracking and decision making is necessary to improve mental health services, especially for minority youth. Additionally, increased designated mental health staff as well as more professional development and training are needed to improve service delivery.

Introduction

In the United States, nearly one fifth of children and adolescents experience signs and symptoms of mental health problems during a school year. Historically, minority groups have faced higher levels of unmet needs, limited access to services, and poorer quality of mental health care. For minority youth, access to quality mental health treatment is especially important as schools are becoming increasingly diverse (Cook, McGuire & Miranda, 2008; Ho, McCabe, Yeah, & Lau, 2010). For minority youth living in urban communities, these disparities are magnified and mental health needs become particularly complex due to fewer available health-related resources, frequent exposure to violence and crime in surrounding neighborhoods, and poorer quality school-based services (Farahmand, Grant, Polo, Duffy & DuBois, 2011; U.S. Department of Health and Human Services, 2001). As schools are called upon to address *both* academic and mental health needs affecting educational performance, especially in urban settings, it is important to carefully examine SBMHPs' perspectives on mental health services for minority youth and related issues of access and cultural responsiveness.

Mental Health and Minority Youth: A Social Justice Issue

For well over a decade, researchers have found minority groups' limited use of quality mental health services a concern (Snowden, Masland, Ma, & Ciemens, 2006; U.S. DHHS, 1999). Significant evidence indicates that minority youth have higher levels of unmet mental health need as compared to non-Hispanic Whites (Ho et al, 2009; Kataoka, Zhang, & Wells, 2002; U.S. DHHS 1999). Additionally, minority populations (Ghafoori, Barraga, Tohidian, & Palinkas,

2012), and particularly youth (Huey & Polo, 2008), underutilize services as well as prematurely terminate from treatment. These statistics are troubling as trauma, depression, suicidality, and anxiety are increasing for youth from diverse linguistic and racial/ethnic backgrounds (Huey & Polo, 2008). Minority youth are particularly likely to be impacted by poverty as well as live in segregated urban communities with fewer available resources (Mather, Pollard, & Jacobsen, 2010; U.S. Bureau of the Census, 2011). Studies have shown that youth living in urban environments are significantly more likely than their peers in non-urban settings to report vandalism, theft, violence, witness the sale of illegal drugs, and partake in alcohol use prior to the age of thirteen. These risk factors, in combination with fewer supports from surrounding communities and schools, and less frequent monitoring by parents can certainly exacerbate mental health challenges for urban youth of color (Farahmand et al. 2011; Shwah & Bossarte, 2009). The disproportionate sentencing of minorities to the juvenile corrections systems adds yet another contextual nuance to the challenges facing urban minority youth (Skibaet al., 2011). Skiba et al. and others (e.g. Nebbitt, 2009; Oravecz, Koblinsky, & Randolph, 2008) have pointed out the impact of violence, incarceration, and other challenges in low-income urban areas, which leave minority youth particularly vulnerable to the impact of trauma and the need for high quality mental health support (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003).

School Psychologists' Service of Minority Youth

The National Association of School Psychologists (NASP, 2010) has identified the provision of preventive and ongoing mental health services as part of a comprehensive school psychology practice model. School psychologists have the research, clinical training, and expertise to increase access to mental health services as well as evaluate and improve the quality of services. While school psychologists are well poised to address these issues in our schools, far too little focus on increasing minority access to quality mental health services, with special consideration given to the impact of living in urban areas, has taken place within the field. Other professions such as school counseling (Tucker, 2009), social work (Gilbert, Harvey, & Belgrave, 2009), and medicine (American Academy of Pediatrics, 2004) have been discussing this more proactively for some time. Compounding this issue, literature in psychology and school psychology underreport or fail to disaggregate findings for minority groups in many of the published articles regarding mental health access and outcomes, which make it difficult to develop evidence-based mental health interventions that may be generalizable to minority groups (Graham, 1992; Graves & Mitchell, 2011; Stevenson, 2003; Swesey, 2008). Data provided by the US Census also underreports the population and needs of minority families and youth, especially those in urban contexts (Mather et al., 2010).

In an innovative series featured in *School Psychology Review,* Atkins, Grazczyk, Frazier, and Abdul-Adil (2003) offered a new model for school-based mental health. They suggested that accessibility, effectiveness, and sustainability become more salient features of mental health models, yet they do so without clearly identifying the populations that need access the most (Matsen, 2003; Sugai, 2003; Weist, 2003). According to Stevenson (2003), there is a conspicuous absence of qualitative or quantitative data to help with the generalizability of findings and program application to populations such as African Americans or other minorities who are largely underserved by mental health providers. Stevenson's critique highlights the need to gain a greater understanding regarding efforts to provide mental health services to minorities.

Research Questions

Four research questions were investigated in the current study: (a) What do SBMHPs report are barriers to delivering mental health services for minority students and families in urban settings? (b) What types of services do SBMHPs most frequently deliver? (c) Who most often receives SBMHS? and (d) What do SBMHPs report is needed to do their job more successfully?

Methods

Interview Participants

Thirty-nine school-based mental health providers (SBMHPs) were interviewed in the current study. Of the 33 SBMHPs who responded to the question on gender, 64% were female. The racial/ethnic breakdown of the SBMHPs was 33% Latino, 35% Caucasian, 1% Asian Pacific Islander, and 31% did not disclose their race/ethnicity. The SBMHPs consisted of school psychologists (n=36), school counselors (n=1), and clinical therapists (n=2).

Schools Served

The SBMHPs served twelve public school districts in Los Angeles and Orange Counties in California. More specifically, these SBMHPs served children across 39 schools with some of these providers working at multiple sites (sixteen high, seven middle, twelve elementary, two K-8, and two not indicated). A majority of the school populations consisted of students of color (25 schools with a population of 45% or more Latino, four schools with 45% or more Asian/Asian Pacific Islander, three schools with 45% or more Caucasian and seven schools multicultural – no racial/ethnic group over 45% and more than four groups represented). Across all schools, the Academic Performance Index (California Department of Education, 1999) scores ranged from 619 to 926, with 800 as the average. A school's API score was not indicative of the amount of services offered or provided by SBMHPs.

SBMHP Qualitative Interview

The interview protocol used with SBMHPs was developed from previous pilot studies (Gamble, 2007; Gamble, Huff, & McQueen, 2010) surveying program leaders about services used with school youth. The Best Practices in mental health services from NASP (NASP, 2010) and the California Association of School Psychologists (Beam, Brady, & Sopp, 2011) were also used to help develop this qualitative interview protocol.

Four open-ended questions were asked that included information about (a) barriers to mental health services for minority students, (b) types of mental health services most frequently provided to students, (c) who most frequently receives mental health services, (d) resources needed (e.g., type of support, programs) to enhance the provision of mental health services at the school.

Pilot Study

In 2008 and 2009, a pilot study using a preliminary version of this qualitative interview

protocol was conducted with graduate students in school psychology enrolled in a counseling course. The survey results were presented at the California Association of School Psychologists' annual convention (Gamble et al., 2010). Interview questions were analyzed via item response design, and the protocol was updated with more explicit directions for the graduate student interviewers as well as the development of follow-up probes if needed.

Interview Administration and Inclusion Criteria

Graduate students interviewed their school psychology supervisors or someone recommended by supervisors such as a school counselor or therapist (e.g., Marriage and Family Therapist or Licensed Clinical Social Worker) who worked at the school site (and self-identified as a SBMHP). Interviews were conducted at school sites, and interview inclusion criteria in the final analysis required the following: a) administration of all interview questions and b) collection of school indicators (Academic Performance Index, school demographics). Thirty-nine out of 60 interviews met criteria and were included.

Research Design

In this study, interviewers used a qualitative interview protocol (Gall, Gall, & Borg, 2003), which involved asking participants identical questions that were intentionally open-ended. This format allowed participants to contribute detailed information in their own words and from their perspective and also allowed the researcher to ask follow-up questions as needed. Qualitative interviews are often used to uncover the subjective interpretations of social phenomena, including opinions, experiences, and shared understandings (Mertens, 2010).

Data Analyses

Survey responses were reviewed and coded by a team of graduate students based on the most frequently occurring responses, and their instructor reviewed the data for consistency. For example, when reviewing codes for what SBMHPs needed to do their jobs (Table 3) the graduate students copied verbatim what was said in the interview and used a codebook with larger categories to code each response. Coded responses were re-examined by the lead author to identify patterns, themes, distinct differences between subgroups, and common sequences relating to the provision of mental health services in schools. These data were confirmed with the co-author. The same was done for the data in Tables 1and 2. Authors worked together to choose the response selections to share as examples of each code. As often occurs in qualitative interviewing, responses were not limited to one per each respondent, and some providers gave more than one response per question. The majority of the respondents, however, gave one short answer per question.

Results

SBMHPs' Views of Access Barriers for Minorities

The most frequently occurring responses regarding limited access to mental health services for minority populations were associated with culturally related factors (n = 24). As an

example, several responses (see Table 1) involved a perceived stigma regarding help seeking, especially for mental health problems.

Table 1

SBMHP's view of barriers to access for minorities

Response Category	**Response Frequency**	**Examples of Qualitative Responses**
Culturally-related factors (Stigma; Culture-specific training and professional development; language translation services; ethnic specific clubs)	24	"Machismo in the Latino community, I mean how do you tell people to be less macho, you can't really change their culture"… "An issue that has often come up is talking to Latino fathers about seeking mental health. As a young Latina women, sometimes parents might seem reluctant to follow through with my advice and I find myself talking to them about the importance of seeking help and the importance of women in the household." "The reason for not contacting one of his bilingual associates is because of the associate's level of understanding, communicating, and translating in Spanish… The SBMHP thinks that more students and parents can be informed of the services through flyers translated in different languages…
Insurance Qualification	8	"…The (SBMHP) also doesn't refer students to some of the people he knows because they don't take Medi-Cal or (Medicaid), and nearly all of the students seek services that accept these forms of payment". "There are no preventative services offered at this school. SBMHP stated that she knows that Medi-Cal offers a lot of services, often more than private insurance in a lot of cases, so she will refer those kids out (rather than find ways to provide the service on the site)".
Agency collaboration & parent follow-up	6	
Consistency (services, policy, & screening)	6	
"All students are minorities"	3	
LGBT support	3	
Mentoring	1	
Does not take the time	1	

Embedded within many of the comments was the idea that "machismo" from the fathers of Latino and African American heritage was, at times, a barrier to families accessing services. The lack of information/services translated into primary languages is a second example of a culturally related factor (n = 8). Five responses indicated that culturally specific training to increase cross-cultural competence was a barrier in the referral process for minority students. Two mentioned the lack of ethnic specific clubs as places for outreach and referrals located at the school or available in the surrounding urban community, while there was only one professional who mentioned the lack of mentoring available for African American and Latino males within schools situated in urban contexts.

The second level of access barriers was related to parental access to services. For example, there were some reports of parents not being able to access services due to limited or poor insurance (n = 8). In six responses, non-collaboration among service agencies in addition to lack of parent support was seen as a systemic challenge. Due to the lack of inter-agency collaboration and an identified case manager, parents are often left to navigate a complex system of services, which can hinder access. Three respondents mentioned the lack of Lesbian, Gay, Bisexual, Transgender, or Questioning (LGBTQ) support as a barrier to services. Only three of the 39 respondents indicated that access is not a problem, as indicated by the statement, "All of our students are minorities."

SBMHPs' Report of Services Delivered

Each respondent was asked to provide at least three types of SBMH services they have offered. No one respondent gave more than three responses for this question; however, the majority (> 15) gave fewer than three. Responses were coded by frequency. The most commonly reported service was individual student counseling (n = 28), followed by outside agency referral (n=20). Group counseling services were also frequently reported (n = 17). The remainder of service types (i.e., DIS/Related Services, Collaboration with MH agencies) were reported at a far lower frequency. Three SBMHPs reported providing family consultation services and fewer reported utilizing multi-tiered school services including conflict-resolution, crisis response, and school-wide positive-behavioral support (PBIS) systems.

SBMHPs' Estimation of Who Receives School-Based Services

When asked who most frequently receives MH services in their respective schools (e.g., which grade, gender, ethnic group, behavior type, teacher referred, parent referred), the majority of SBMHPs responded that those most often receiving services mirror the "school demographic." It must be noted that only one of the SBMHPs surveyed actually provided caseload data to support services received. The second most frequently occurring response (n=7) indicated a specific ethnicity that often received services. With similar frequency (n = 7), several SBMHPs reported that students under the Emotionally Disturbed (ED) special education category received most of the mental health services. Females were seen utilizing services (n = 7) more frequently than males (n = 5). Students with Autism Spectrum Disorders (ASD) were also mentioned as those who received services (n = 4). A final group (n = 4) did not answer this question because, as one person stated, "there is no time to aggregate data."

Table 2

SBMHP's estimation of those who receive services

Response Code	Responses
School Demographics are consistent with the CP	18
Ethnicity indicated*	7
Special Day Class for ED	7
Female	7
Males	5
Autism	4
Not Indicated	4
Crisis response	1
Foster Care specific services	1
Small Learning Communities	1
Speech/Language Pragmatics	1
School Wide Positive Behavioral Intervention and Support	1

*Although requested, respondents provided no clear data only a memory of what they thought the population reflected by ethnicity.

SBMHPs: What We Need to Do Our Job

When SBMHPs were asked to list their top three needs to more effectively deliver mental health services (see Table 3), the most frequent responses were (a) to have designated staff (school psychologist, counselor or therapist) as mental health providers (n = 22) and (b) more time to provide these types of services (n = 15). The respondents also wanted an increase in family participation in therapy (n = 9), as well as an increase in staff development, specifically for SBMHPs within the context of minority access and stigma (n = 7). The remainder of responses were mentioned with far less frequency, but included student access to insurance, academic tutoring for students, social skills classes and school-wide PBIS.

Table 3

SBMHP's indication of what they need to do their job

Response Code	Responses
Agency or specific SBMHP staff	22
Time to the do job	15
Parent participation/family connections	9
Insurance support for families	8
Staff Development for SBMHP	7
Academic Tutoring	6
Social skills classes or use of School Wide Discipline	6
"Funding or Money"	5
Test kits	5
Administrative Support	4
Translation services	3
Teacher/staff collaboration	3
Drug/Alcohol counseling	2
Library or Online Information	2
Ideas to motivate students "passion"	2

Discussion

In the current study, SBMHPs were interviewed about several aspects of their mental health service provision, especially for urban minority youth. When asked about barriers to providing services to minority youth in urban settings, the responding school psychologists, school counselors, and therapists in these semi-structured qualitative interviews reported concerns about culturally related factors such as stigma about mental health problems and resistance to help-seeking efforts. More specifically, "machismo" was mentioned as impactful to treatment, which according to some scholars is defined by perceptions of male dominance and

power (Rivas Quiñones, 2009). Of course, the concept of machismo embodies interwoven and highly complex ideas about masculinity, gender roles, and family caretaking. In many families, traditional notions of machismo may be in direct conflict with how a father perceives help seeking and psychological intervention for mental health problems, especially fathers of Black (Connor & White, 2011) and Latino youth (Rivas Quiñones, 2009). Machismo should be understood as part of a group's cultural heritage; however, it needs to be analyzed more carefully and on an individual basis with regard to its impact on the lives of the families needing ongoing treatment. Additionally, while the vast majority of psychologists, counselors, and therapists are female, machismo may also interfere with the therapeutic relationship and follow-through on treatment recommendations.

In an ongoing effort to become more culturally responsive, cultural factors like the aforementioned need to be considered, especially for minority students and their families in urban settings. The lack of translation resources, both for meetings and in printed material, was also indicated as a significant barrier to accessing services for some minority families, which has been on ongoing concern for urban schools (Ortiz, Flanagan, Dynda, 2008). Other frequently mentioned barriers included inability to refer to outside providers due to insurance restrictions. Without adequate insurance, many families are simply unable to address the mental health needs of their children. As poverty and urbanicity are associated with a multitude of stressors, ranging from systemic community challenges (underemployment, crime, violence) to smaller everyday hassles (lack of transportation, translation services), students from these environments face a continuum of challenges in accessing services. As one example, a recent study conducted in Los Angeles County—where many of the current study's interviews were conducted—underscores a significant gap in the understanding of challenges within an urban area. More specifically, as many of the SBMHPs are middle to high income earners, their well-meaning suggestions to seek treatment at mental health agencies fails to take into account that urban, low income, and minority families are more likely to rely on public transportation, which may greatly increase family burden (Amissah, 2010). While SBMH has evolved as a solution to address access barriers, not all schools can provide comprehensive onsite services and need improved coordination with community resources (Hunteret al., 2005), especially for students needing intensive services.

Three SBMHPs mentioned the lack of support for working with LGBTQ minority youth. More attention should be devoted to sexual minorities who are also ethnic or racial minorities as it may be less likely that SBMHPs focus on the mental health support of LGBTQ youth other than in regards to bully prevention (Gamble, 2009). While this question certainly elicited several important barriers to MH services for minority groups, these authors were reminded of the importance of awareness and advocacy for MH services for "hidden" minorities and those represented by small numbers. As one Latino male honestly stated, "Our school does not reach out to African American males because they are such a small part of the population." Such a comment is consistent with Stevenson's (2003) critique of school psychology related services.

It is important to note that while SBMHPs identified several barriers, not one mentioned the lack of access to interventions that address mental health conditions in culturally and linguistically diverse groups. Historically, research on mental health interventions with diverse populations has been limited (US DHHS, 2001); however, more recently, established evidence-based interventions that address mental health with minority youth have been examined (Ho et al., 2009; Huey & Polo, 2008; Miranda et al., 2005). Schools must carefully consider whether a treatment approach is culturally appropriate for a given schools' needs by evaluating

responsiveness on a range of cultural concerns (i.e., languages, traditions, values) as well as concerns particular to the urban context (e.g., transportation, jurisdiction of county vs. city, etc.).

When asked about the types of services delivered, the SBMHPs most frequently conducted individual and group counseling. Secondly, they reported making referrals to outside agencies. This is consistent with prior studies (Foster et al., 2005); however, it was surprising that only three SBMHPs involved family members in the therapy sessions. This seemed to highlight a missed opportunity, as many respondents listed parents as their most frequent referral sources.

As parents are notifying schools about mental health problems affecting their children, many of which overlap with problems in home dynamics, it is unfortunate that services are not more inclusive and engaging of parents. As research has revealed that mental health conditions are often intergenerational, how can school services be optimally effective if they are not engaged in home school collaboration (Hunter, et al., 2005)? This points to stronger links with the mental health sector in the provision of family services. It is also noteworthy that few providers reported implementing school wide Positive Behavior Intervention Supports (PBIS), which stands in contrast to the growing research supporting PBIS as part of Response to Intervention (RtI) service delivery to address mental health.

Another surprising finding was the lack of consistent data collection by the SBMHPs regarding caseload characteristics and/or demographics. When asked who most frequently received their services, the majority of SBMHPs reported that students receiving services matched the demographics of the student body; however, only one provider had readily available data to support this. All others recalled details about their caseload demographics from memory. Only one out of the 39 respondents was able to access demographic data that had been recorded (e.g., referral reason, disability status, race/ethnicity) on their current caseload.

This insufficient level of data collection and tracking has been identified as a practice that can potentially lead to discriminatory services. One particularly troubling comment occurred when one respondent retrieved their "Designated Instructional Services" or related counseling services caseload from the district database and exclaimed in the interview, "They are all Black males"—at a school with less than 20% African Americans in the student body. Skiba et al. (2011), in addition to other researchers, recommend that practitioners frequently disaggregate site-based data across various student groups to evaluate school-based MH services and their associated outcomes in an effort to be more culturally responsive (Gamble, 2011; Rueda, 2004; Skibaet al., 2011).

Limitations

Although measures were taken in a preliminary pilot study to ensure that graduate students were able to conduct the semi-structured interviews, there are inherent challenges with having qualitative interviews conducted by novice researchers. Also, self-reports of school psychologists are limited by the fact that the results are based only on their perceptions. Conclusions drawn must be tentative as this represents a preliminary, exploratory study of provider perspectives.

Implications for Educators to Address School-Based Mental Health

School administrators, school psychologists, and other mental health providers in schools and communities are faced with increasing demands due to complex student needs in addition to cultural factors and systemic challenges (Beam eta al. 2011). To address access barriers, Gutkin (2012) suggests school psychologists develop approaches based on a public health model. This model, which includes (a) tracking the incidence/prevalence of problems, (b) identifying risk and protective factors that are impactful to intervention design and (c) appropriate dissemination to stakeholders can address the complexity of student needs in urban schools. These stakeholders are often a part of the surrounding community and can provide more authentic cultural context and support for mental providers working in diverse settings as well as give them formative and summative feedback to improve their service delivery (DeAngelis, 2001; Stevenson, 2003).

For educators, a multi-tiered model is well aligned with this charge proposed by Gutkin (2010), and should ideally include evidence-based prevention and screening that increases in specificity and intensity based on individual school needs. Additionally, a suggested shift from assessment and diagnosis to advocacy, consultation, education and training should be the future direction of school services, which may increase awareness, lessen stigma, and ultimately address the crisis in the area of mental health in today's schools. When the school and community are empowered and knowledgeable about advances in applied psychology and mental health, they can address needs and mitigate associated challenges. Moreover, if SBMHPs can adopt a public health perspective and ecological approaches to understanding, rather than individual-pathological ways of knowing, improved outcomes for students may be realized.

References

American Academy of Pediatrics (2004). School-based mental health services: Policy statement: Organizational principles to guide and define the child health care system and/or improve the health of all children from the Committee on School Health. *Pediatrics, 113* (6), 1839-1845. As retrieved July 3, 2007 from www.pediatrics.org

Amissah, K. (2010). *Community by public transportation trends in Los Angeles County, 2000-2010.* As retrieved July 23, 2014 from http://www.barrywaite.org/gis/projects/spring-2103/Amissah.pdf

Atkins, M., Graczyk, P., Frazier, S., & Abdul-Adil, J. (2003). Towards a new model for promoting urban children's mental health: Accessible, effective, and sustainable school based mental health services. *School Psychology Review, 32* (4), 503-514.

Beam, E., Brady, J., & Sopp, T. (2011). *School psychologists are the best equipped to deliver mental health services in the schools* (Report from Mental Health Task force and Professional Development Committee). Retrieved 09/01/2011 www.casponline.org

California Department of Education (1999). *Academic Performance Index (API).* As retrieved January, 1, 2011 from http://www.cde.ca.gov/ta/ac/ap/

Connor, M. & White, J. (2011). *Black Fathers: An invisible presence in America*. New York, NY: Routledge.

Cook, B., McGuire, T. G., & Miranda, J. (2007) Measuring trends in mental health care disparities, 2000-2004. *Psychiatric Services. 58* (12), 1533-1540.

DeAngelis, T. (2001). A successful marriage of psychology and public health. *Monitor in Psychology, 32* (3), 40.

Farahmand, F., Grant, K., Polo, A., Duffy, S., & DuBois, D. (2011). School-based mental health and behavioral programs for low-income, urban youth: A systematic and meta-analytic review. *Clinical Psychology: Science and Practice*, *19*(2), 372-390.

Foster, S., Rollefson, Doksum, T., Noonan, D., Robinson, G., & Teich, J. (2005). *School mental health services in the United States, 2002-2003*. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration.

Gall, M, Gal, J., & Borg, W. (2003). Educational research: An introduction (7th Ed.). Boston, MA: A & B Publications.

Gamble, B. (2007). *Social capital networks of institutional agents and the empowerment of African American youth.* (Doctoral dissertation, University of Southern California, August 2007).

Gamble, B. (2009). Speak Out! LGBTQ School Psychologists' experiences in California schools. *CASP Today: A peer-reviewed publication of the California Association of School Psychologists. 59*(2) www.casponline.org.

Gamble, B. (October, 2011). *Data based decision-making and mental health.* Workshop at the first annual colloquium of the California Association of School Psychologists, Long Beach, CA.

Gamble, B., Huff, B., & McQueen, P. (April, 2010). *Minorities' Access to Mental Health Services in Schools*. Paper Presentation at the annual conference of the California Association of School Psychologists, Santa Clara, CA.

Ghafoori, B., Barraga, B., Tohidian, N., & Palinkas, L. (2012). Racial and ethnic differences in symptom severity of PTSD, GAD, and depression in trauma-exposed, urban, treatment-seeking adults. *Journal of Traumatic Stress, 24*, 106-110.

Gilbert, D., Harvey, A., & Belgrave, F. (2009). Advancing the Africentric paradigm shift discourse: Building toward evidence-based practice Africentric interventions in social work practice with African Americans. *Social Work 54*(3), 243-252.

Graham, S. (1992). "Most of the subjects were White and middle class": Trends in published research on African Americans in selected APA journals, 1970-1989. *American Psychologist, 47*, 629-639.

Graves, S., & Mitchell, A. (2011). Is the Moratorium Over? African American Psychology Professionals' Views on Intelligence Testing in Response to Changes to Federal Policy. *Journal of Black Psychology. 37*(4), 407-425.

Gutkin, T. (March, 2012). *Addressing American's mental health and education pandemics: school psychology to the rescue?* Invited keynote presentation at the annual conference of the California Association of School Psychologists, Costa Mesa, CA.

Ho, J., Yeh, M., McCabe, K., & Hough, R. (2009). Parental cultural affiliation and youth mental health service use. *Journal of Youth Adolescence, 36,* 529-542.

Huey, S. & Polo, A. (2008). Evidence-based psychosocial treatments for ethnic minority youth. *Journal of Child & Adolescent Psychology, 37* (1), 262-301.

Hunter, L., Hoagwood, K., Evans, S., Weist, M., Smith, C., Paternite, C., Horner, R., Osher, D., Jensen, P., & the School Mental Health Alliance (2005). *Working Together to Promote Academic Performance, Social and Emotional Learning, and Mental Health for All Children*. New York: Center for the Advancement of Children's Mental Health at Columbia University.

Kataoka, S., Zhang, L., & Wells, K. (2002). Unmet need for mental health care amoung U.S. Children: Variation by ethnicity and insurance status. *American Journal of Psychiatry,*

159, 1548-1555.

Masten, A. (2003). Commentary: Developmental psychopathology as a unifying context for mental health and education models, research, and practice in schools. *School Psychology Review, 32* (2), 169-173.

Mather, M., Pollard, K., & Jacobsen, L. (2010). *First results from the 2010 census.* A retrieved 07/19/2014 from www.prb.org

Mertens, D.M. (2010). *Research and Evaluation in Education and Psychology: Integrating diversity with quantitative, qualitative and mixed methods.* 3rd Edition. Los Angeles: Sage, Inc.

Miranda, A. (2008). Best practices in increasing cross-cultural competence. In A. Thomas and J. Grimes' *Best practices in school psychology (5th Edition).* Bethesda, MD: National Association of School Psychologists.

Miranda, J., Bernal, G., Lau, A., Kohn, L., Hwang, Wei-Chin, & LaFromboise, T. (2005). State of the science on psychosocial interventions for ethnic minorities. *Annual Review of Clinical Psychology, 1*, 113-142

National Association of School Psychologists (2010). Model for comprehensive and integrated school psychological services. As retrieved 06/01/2010 from http://nasponline.org

Nebbitt, V. (2009). Self-efficacy in African American adolescent males living in urban public housing. *Journal of Black Psychology, 35* (3), 295-316.

Oravecz, L., Koblinsky, S., & Randolph, S. (2008). Community violence, interpartner conflict, parenting, and social support as predictors of the social competence of African American preschool children. *Journal of Black Psychology, 34* (2), 192-216.

Ortiz, S., Flanagan, D., & Dynda, A. (2008). Best practices in working with culturally diverse children and families. In A. Thomas & J. Grimes (eds.), *Best Practices in School Psychology V.* Bethesda, MD: The National Association of School Psychologists.

Rivas Quiñones, L. (2009). Counseling from the subversive: The development of psychotherapy in Puerto Rico. In Lawrence Gerstein et al's *International Handbook of Cross-Cultural Counseling*. Los Angeles, CA: Sage.

Rueda, R. (2004). An urban education view of culture and learning**.** *Urban Education*, *Fall*, 20-22.

Swahn, M. & Bossarte, R. (2009). Assessing and quantifying high risk: comparing risky behaviors by youth in an urban, disadvantage community with nationally representative youth. *Public Health Reports, 124* (2), 224-233.

Skiba, R. J., Horner, R. H. Chung, C. G., Rausch, M. K., May, S. L., Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. *School Psychology Review, 40*, (1), 85-107.

Snowden, L., Masland, M., Ma, Y., & Ciemens, E. (2006). Strategies to improve minority access to public mental health services in California: Description and preliminary evaluation. *Journal of Community Psychology,* 34, 225–235.

Stevenson, H. (2003). Commentary: The conspicuous invisibility of Black ways of being: Missing data in new models of children's mental health. *School Psychology Review, 32* (4), 520-524.

Sugai, G. (2003). Commentary: Establishing efficient and durable systems of school-based support. *School Psychology Review, 32* (4), 530-535.

Swesey, M., (2008). *Evidence based practices and multicultural mental health* (White Paper). Retrieved 11/01/12 from http://www.nami.org

Tucker, C. (2009). Low-income African-American caregivers' experiences of being referred to mental health services by the school counselor: implications for best practices. *Professional School Counseling, 12* (3), 240-252.

U.S. Bureau of the Census. (2011). Income, expenditures, poverty, & wealth. Washington, DC: Government Printing Office. Retrieved from http://www.census.gov/compendia/statab/cats/income_expenditures_poverty_wealth.html

U.S. Department of Health and Human Services. (2001). Chapter 2: Culture counts: The influence of culture and society on mental health. In Mental health: Culture, race, and ethnicity—A supplement to mental health: A report of the surgeon general. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.

Weist, M. (2003). Commentary: Promoting paradigmatic change in child and adolescent mental health and schools. *School Psychology Review, 32* (3), 336-341.

Yasso, T. (2005). Whose culture has capital? A critical theory discussion of community cultural wealth. *Race Ethnicity and Education, 8*(1), 69-91.

URBAN AND RURAL HIGH SCHOOL STUDENTS' PERSPECTIVES OF PRODUCTIVE PEER CULTURE FOR MATHEMATICS LEARNING

Melva R. Grant
Old Dominion University

ABSTRACT

The purpose of this study was to determine students' perspectives about productive peer culture (PPC) in general and for mathematics learning. The urban and rural high school students in this study have participated for at least one year in either an Algebra Project Cohort Model (APCM) for daily mathematics instruction and/or worked as mathematics literacy workers. These initiatives immersed students in mathematics thinking and learning cultures. This study used qualitative methods to interpret students' perspectives about PPC. The findings, informed by students' perspectives, determined that a productive peer culture for mathematics learning required collaboration, communication, positive dispositions, deep thinking, and peer support. One implication of this study is that education stakeholders may gain insights for changing student behaviors for learning. A second implication is that APCM and mathematics literacy work may be viable pathways for transforming high school mathematics culture for learning that prepares students for the knowledge work required for the 21st century.

Introduction

Reasoning and sense making should occur in every mathematics classroom every day. In such an environment, teachers and students ask and answer such questions as "What's going on here? and "Why do you think that?" (National Council of Teachers of Mathematics [NCTM], 2009, p. 5)

The above statement highlights a vision for learning that has been evolving for several decades for improving mathematics learning and teaching—the need for students to actively participate in mathematics classrooms and for teachers to create opportunities for students to participate (Kilpatrick, Swafford, Findell, National Research Council [NRC], & Mathematics Learning Study Committee, 2001; NCTM, 1991; 2000). These ideas suggest more effective mathematics teaching and greater learning by way of sociocultural shifts in classrooms. The call for mathematics classroom changes has been consistent since the introduction of the mathematical process standards via NCTM's Principles and Standards for School Mathematics (PSSM), subsequent publications (Martin & Herrera, 2007; NCTM, 2000; Strutchens & Quander, 2011), and the development of the Common Core State Standards for Mathematics mathematical practices (Common Core State Standards Initiative [CCSSI], 2010).

Importantly, mathematical practices and processes should infuse sociocultural elements into mathematics teaching (Goos, 2004; Russell, 2012). Research has documented how mathematics classrooms are influenced by sociocultural contexts (Brown & Hirst, 2007). Further, teaching and learning designed for developing mathematical understanding is a sociocultural endeavor (Choppin, 2004; Goos, 2004; Hiebert et al., 1997). It follows that the sociocultural nature of mathematics classrooms are influenced by all who inhabit them—

teachers, students, and community members. Each of these classroom constituents' perspectives can inform sociocultural changes needed for developing mathematical understanding.

This study reports findings that are part of a five-year, NSF-funded investigation to understand how the Algebra Project Cohort Model (APCM) affected mathematics classroom environments and influenced mathematics literacy for underserved students (Moses, Dubinsky, Henderson, & West, 2013). The current study shares findings developed through year two of the project and included students from two sites. This study sought to understand students' own perspectives and experiences about productive peer cultures (PPC) for mathematics learning. The guiding research questions were:

1. What perspectives do high school students have about PPC?
2. What perspectives do they have about the influences of PPC on their mathematics learning?

Findings of this study provide insight into how a group of urban and rural students perceive themselves as mathematics learners. Their perspectives can inform classroom teachers, administrators, and policy makers who endeavor to improve mathematics learning and classroom environments.

Literature Review

This section conceptually frames this study and situates it within the literature on effective mathematics learning in classrooms through two themes—first, community and culture, and, second, productive peer cultures.

Community and Culture

Many urban and rural high school mathematics classrooms have disproportionate numbers of students who continue to be underserved by schools in the U.S. (Anyon, 2006; Hardy, 2005). An underlying assumption is that these students are well-served by remedial interventions (e.g.., repetitious skill-based practice), but there are better approaches for closing academic gaps (Fisher, Frey, & Lapp, 2011). However, research suggests culture and community can positively influence mathematics learning (Ares, 2006; Walker, 2006), student participation (Sullivan, Tobias, & McDonough, 2006), and opportunities for students to learn (Hand, 2010).

Generally speaking, learning is enhanced when community and cultures are positive and supportive, and hindered when they are not. For example, Fisher, Frey, and Lapp (2011) targeted school community and learning culture for increasing attendance and student engagement that led to community and culture that improved achievement. Similarly, Hardré, Crowson, Debacker, and White (2007) showed how factors such as student perceptions of classroom climate and teacher effort were positively related to student perceptions of learning, goal setting, and school and classroom engagement. Conversely, when community is unsupportive and cultures unproductive, learning is negatively influenced. For example, other studies found that urban and rural students choose not to participate in unsupportive or unproductive learning settings (Hendrickson, 2012; Sullivan et al., 2006). Hardré et al. (2007)

described this behavior as performance avoidance, which was negatively related to school engagement and effort. These findings suggests that urban and rural students are similar, and they benefit from positive learning community and cultures that lead to setting learning goals, expending effort, and choosing to participate.

The Algebra Project, Inc. curricular approach infuses community and culture through the application of experiential learning theory, described by Moses and Cobb (2001)) as ". . . cyclical experiences in which people try something, then think about what they did, and then make improvements, then practice their improvements" (p.198). This approach allows access and opportunity for participation and mathematical understanding. The Algebra Project Cohort Model (APCM) supports and encourages pedagogies that engage students' lived experiences and creativity as a part of their mathematics learning. The assumptions built into the APCM are supported by research that finds that students from all geographic regions preferred learning that affords creativity and fun (Johnson, 2006). Approaching mathematics experientially opens access and is an innovation for mathematics learning environments while affording different cultures than remediation-focused classrooms (Moses & Cobb, 2001).

Productive Peer Cultures

Research supports that PPCs faciliate student enagement, thinking, creativity and positive dispositions toward learning. For instance, Moses and Cobb (2001) described mathematics cultures for urban and rural students that require creativity, active engagement, and self-reliance. The NRC (Kilpatrick et al., 2001), on the other hand, described students' productive mathematical dispositions as positive beliefs about mathematics, persistent engagement, and a focus on personal fulfillment. Implementing sociocultural changes inspired by NRC and other standards (CCSSI, 2010; NCTM, 2000) requires transforming mathematics classroom cultures, from traditional—where expert teachers show and tell passive students (Freire, 1970; Tyner-Mullings, 2012)—to productive cultures—with collaborative communities for sense making (Choppin, 2004; Moses & Cobb, 2001; Sfard, 2001). Research insinuating the importance of PPC includes the foundational TIMMS study that identified classroom social culture as a key dimension of mathematics classrooms for developing mathematical understanding (Hiebert et al., 1997) as well other other more recent studies (Grant, 2009; Sfard, 2001, 2007; Sfard & Kieran, 2001).

Methods

Qualitative methods—iterative cycles of constant comparisons—were used to interpret students' verbal and written responses to understand their perspectives, which makes the methods appropriate (Denzin, 1997).

Participants and Site

The two-week residential APCM Summer Institute included students from two different APCM sites from the Midwestern U.S., one urban and the other rural. The students had been involved with APCM for one to three years through daily mathematics instruction and/or as mathematics literacy workers for the Young People's Project: Math Literacy and Social Change (n.d.). These affiliations afforded a purposeful sample of participants given their experiences

collaborating and engaging in PPC.

Twenty-six students (twelve males and fourteen females) attended the summer institute and participated in the study, fifteen of whom were urban and eleven rural. Both school contexts were characterized by high poverty and limited parent support for learning (Bishop, 1989). The two groups differed on race and gender ratios—the urban students self-identified as Black or bi-racial, with eight males and seven females; the rural students self-identified as White or multi-racial (non-Black), with four males and seven females.

Data Collection

The student data included: a) audio recordings (approximately 220 minutes) - group collaborations and reflections; b) written artifacts - notes, summaries, and concept maps; c) video recordings (approximately 40 minutes); and d) audio recorded (45 minutes) mathematics learning sessions from the second week of the summer institute. The majority of the data was collected during the two working sessions: a) an introductory session that started the institute; and b) a reflective session that ended it.

Introductory session (90-minutes). First students wrote PPC characteristics. Then to ensure an early morning engaging experience, diverse collaborations were shown using clips from Monsters, Inc. (Disney Enterprises Inc./Pixar Animation Studios, 2001). Most students knew the story, allowing random clips to be shown without compromising understanding. The researcher's and students' perspectives about clips are compared in Table 1.

After each clip, groups identified peers in the scene, decided if collaborations were PPC, explained their positions, and reached group consensus. Then the class was polled, and when groups differed, positions were persuasively argued providing rationales until class consensus or an agreement to disagree was reached. Before leaving, students were encouraged to initiate and look for PPC during the institute as they learned mathematics. Finally, students were told of the PPC reflective session on the last day.

Reflective session (60-minutes). Students were asked to share instances of PPC related to mathematics learning either verbally or in writing. Few opted to write, but several documented accounts via recording. Two audio recorders were passed among students while they shared recollections within groups. After about 30 minutes, groups created concept maps that depicted their thinking about PPC for mathematics learning.

Data Analysis

Inductive analysis was utilized to examine the student data. This method of analysis involved identifying interpretive themes from reviewing the data (Creswell, 2009; Patton, 1990). The inductive analysis process began with a thorough examination of the data—reading and listening multiple times while searching for patterns. Themes were refined by finding redundancy in multiple sources or participants.

Qualitative interpretation methods were used for interpreting the students' perspectives (Wolcott, 2001). By carefully examining student artifacts (e.g., PPC characteristics and concept maps), thematic patterns emerged for coding. This analysis revealed a PPC definition, then the two working sessions, PPC accounts, and the classroom recordings were coded searching for supporting (or contesting) evidence.

Results and Findings

Results

The students' perspectives differed from those of the researcher and this became evident after the introductory workshop (see Table 1). For example, in clip two ("Monsters in the Closet"), the researcher's perspective was "no PPC"; students expanded the peer group and described the interaction as "negative PPC." The students focused on the interaction outcome versus the cultural context for interaction. A student noted, "PPC can be negative or positive, but the outcome is what needs to be productive" (Introductory Session, July 2011).

The students' and researcher's perspectives aligned as more clips were considered (see Table 1). Several student PPC perspectives that emerged during the introductory session persisted and re-emerged for their mathematics learning (see *italicized* text, Table 1). For example, a persistent theme started as *shared goal* and became "common goal." An indirect example that persisted was *intent* and became "positive personal disposition."

Table 1
Examples and Non-Examples of Productive Peer Culture for Scenes Used During the Introductory Session 1

	Researcher's Perspectives			Students' Perspectives	
Scene # -Title	Peer Group	PPC (Y|N)	Characteristics of PPC	PPC (Y|N)	Characteristics of PPC
2 -Monsters in the Closet	Scare recruits	N	No peer communication or teamwork	Y|N	"Negative PPC" with *productive outcome* (i.e., feedback about scaring); peer group included tester and Mr. Waternoose
4 -Morning Workout	Sam & Sulley	Y	Teamwork, shared goal	Y	"Positive PPC" with *productive outcome* (i.e., good preparation for scaring); *good relationship* and interaction; *shared goal* – scaring
8 -Scare Floor	Multiple Scaring teams	Y|N	Collaborative, argumentative, supportive, competitive	Y|N	"Negative PPC" persists [some students are beginning to question this as not PPC when interactions are negative, such as] "Randal's *intent* is selfish"
12 - Harryhausen's	Restaurant monsters	N	Uncooperative, every monster for itself, chaotic	N	No time to fix problem (i.e., get rid of Boo); *no focus*, chaos
14 -Bedtime	Sam & Sulley	Y	Sense making, planning, teamwork, common goal		Clip not used due to time

The most coded themes are presented in Table 2 and were interpreted as representing

students' perspectives about PPC. The percentage of data sources coded (column 2) shows the highest frequency coded themes with redundancy by sources (types and groups), which strengthened the validity of findings via source triangulation (Lather, 1993).

Two themes were most represented within the student data—collaboration for learning (93%) and mathematics communication (70%) (see Table 2). The remaining high represented themes, each found in greater than 50% of data sources coded were positive personal dispositions (63%), peer support (56%), and cognitive demand (56%). Alternatively, when identifying the most coded themes the order varies but the themes remain the same, further strengthening the findings by triangulation (Lather, 1993).

Table 2
Data Analysis Summary of Coded Themes with Examples from the Data

Theme (Code)	Sources Coded	Times Coded	Data Source Group #	Examples of Student Voice from the Data
Collaboration for Learning	93%	60	Reflective session	They [peers] broke it down to the point where I could really grasp it
			Introductory session	Working together with friends/co-workers on something you believe in
Mathematics Communication	70%	36	Concept Map 3	Common language; verbal; and non-verbal
			Concept Map 1	Talking to one another about roles, activities, and/or the work
Positive Personal Dispositions	63%	40	Characteristics 5	Young people can develop self-worth around a negative youth subculture
			Concept Map 2	Sacrifice; loyalty; positive attitude
Peer Support	56%	39	Characteristics 4	Constructive criticism
			Reflective WS	D came over and worked with T to really motivate them
Cognitive Demand	56%	39	Concept Map 6	Taking ideas and turning them into actions
			Characteristics 7	When there is a challenge

Findings: What Perspectives to High School Students Have about PPC?

Very early during the introductory session, students articulated the five themes for PPC that persisted throughout the institute (see Table 2). For example, during the Introductory Session about clip two, students from group 1 argued "not PPC":

> His peers are terrible. When they asked the peers, what he did wrong? They didn't know. They supposed to know.
>
> —Student 1, Introductory Session, July 2011

> The lady asked for their feedback, they didn't give it, 'cause they were dead [nonresponsive]. Once she answered, they [monster peers] figured it out. That's not productive. They're not working together and they basically gave up until she said it.

—Student 2, Introductory Session, July 2011

In this rationale, three of the persistent PPC themes emerged—positive dispositions, communication, and collaboration. The monster peers were described as "terrible" and "dead," as having negative dispositions, being not communicative, and "not working together." The students mentioned the monsters were not trying or not cognitively engaged when they said, "they supposed to know" and "they basically gave up until she said it." The monster waited for the answer. The students' position was that the monsters were not engaged in thinking about scaring and did not offer ideas.

The final characteristic, peer support, was well articulated in group 2's explanation supporting PPC for clip four ("Morning Workout"): "He was pushing him to work, to be better than what he was" (Student, Introductory Session, July 2011). Students believed peer support helps one be more than s/he might individually. Students relying on one another was evidenced in their comments and observed during the classroom learning at the institute.

Findings: What Perspectives do High School Students Have About Influences of PPC on Their Mathematics Learning?

The students who attended the institute chose to engage in mathematics for two weeks after school ended. An assumption of this study was that students would learn mathematics during the institute and the experiences could be easily recounted after the two weeks. One group of students' definition for PPC during the reflective session was as follows:

> We're the ones who make up peer productive culture without us then there's nothing. We're the ones who have to give the support to each other. We as peers have to show and give communication to each other. We as young adults must take on leadership to overcome different obstacles in life. Us as leaders, have knowledge to make a change of production that we do. It's all on us.
>
> —Reflective Session, July 2011

After this articulation, other students made utterances about their concurrence, such as "There is nothing more to say," and "They said it all."

The data analyses revealed a second tier of themes—commitment, agency, leadership, and engagement—as measured by percentage of sources coded and times coded. The previous quote includes these four and the aforementioned five PPC themes.

These themes are central in most students' PPC accounts. For example, one student arrived after the introductory session and was briefed by another with the following description:

> Productive peer culture is pretty much like you and your peers getting together and tryin' to make something good of the situation. Like if y'all tryin' to do a math problem, you and your whole group are trying to figure it out. Not just a few people, but everybody is trying to do the one thing to figure it out.
>
> —Reflective Session, July 2011

The student describes PPC as "getting together and tryin'" (i.e., collaborating, agency) and "everybody is trying . . . figure it out" (i.e., commitment, engagement).

A second example of PPC from a student's account offers a global perspective that

characterizes mathematics learning during the institute:

> The hard work showed off. Everybody got stuff done, everybody who was slackin' picked up the slack and that's all it is, they worked hard in different groups and some of the people they didn't even like but they got over those foes and worked hard and worked together.
>
> —Reflective Session, July 2011

This brief account mentions cognitive demands as "hard work" multiple times. Agentic behaviors are included: "got stuff done" and working with "people they didn't even like." Positive dispositions included "picked up the slack" and "got over those foes." We offer one final example of a student's PPC account:

> Another way was when T's theorem was being done. Uh, J went up to the front and helped them out without actually taking over their theorem. He like was squatted down at the board and helped them work through it, and helped them push the theorem forward. And when people talk about T's theorem they talk about T and A, and they forget that J was even up there.
>
> —Reflective Session, July 2011

In this account a very relevant but implied PPC theme is J's leadership, as seen in the comment "helped them without actually taking over." This event occurred during the observed classroom session. The presenting students were stuck; J was not a member of the group presenting, but he went to the board and helped. His action was recognized by his peers; they discussed it after class.

Informed by the data, the analyses, and literature, the researcher posits a PPC definition:

> Students work hard in collaboration with peers in pursuit of a common goal. The students are committed to ensuring mathematical understanding for themselves and others. They exhibit sufficient confidence to respectfully communicate their mathematical perspectives to the world and sometimes provide mathematical leadership.

In summary, students' perspectives about PPC for mathematics learning include: a) collaboration for learning requires respect and deep thinking focused on common goals; b) learning mathematics is a commitment; c) gaining understanding supports self and peers, including those not considered friends; and d) mathematical agency and sometimes leadership manifests in positive outcomes that should be communicated. These findings suggest students' awareness of what is needed to develop PPC for mathematics learning.

Discussion

This study about students' perspectives about PPC for mathematics learning offers insights from students for students, teachers, administrators, and policy makers interested in transforming mathematics classroom cultures for improved learning. Effecting change within high schools located in urban or rural communities has been especially challenging and requires comprehensive support structures (Fleischman & Heppen, 2009). The literature offers much

with respect to descriptions of effective mathematics learning environments, what to teach, how, and when (CCSSI, 2010; Hiebert et al., 1997; NCTM, 1991; 2000). However, none of these include students' perspectives.

One implication from this study is that PPC is not likely to emerge in mathematics classrooms taught using only traditional approaches. PPC requires collaborative thinking and supporting peers for mathematics learning. Most urban high schools rely on and advocate for traditional teaching methods and do not utilize mathematical practices or processes for several seemingly "good" reasons (Haberman, 1991, 2010). Haberman describes traditional teaching environments as spaces for compliance, non-supportive climates, and anti-peer communication; students lead through compliant or distractive learning behaviors. These student behaviors are the antithesis of those described in this report for PPC.

A second implication of this study is the introduction of students to the mathematics education discourse. These students, typically labeled "at risk," were aware of what they needed and informed our vision for transforming mathematics classroom cultures. More widely accepted approaches for reform include curricular development, remediation, and accountability systems (Fleischman & Heppen, 2009). If APCM initiatives can be shown to consistently influence PPC among underserved students, a new approach for reform is added to that list.

The final implication of this study is the potential benefit to students. Many approaches to reform require teachers, administrators, and other adults to effect change, but this study's findings suggests galvanizing students to change their behaviors and ways of interacting with peers for learning. When students change their culture, that change is likely to be long-lived because culture follows the person (Ares, 2006; Nasir, 2002; Walker, 2006). Adding students' perspectives as yet another spoke in the wheel of mathematics education reform strengthens our progress to improve mathematics learning and teaching.

More research is needed to further theorize the specifics about PPC and ways to manifest it in classrooms. We need to understand how the APCM initiatives contribute to the emergence of PPC, while also determining alternative initiatives for developing PPC. Finally, benefits may emerge from questioning students about other ideas they might offer for improving their mathematics learning, teaching, and their environments.

References

Anyon, J. (2006). Social class, school knowledge, and the hidden curriculum: Retheorizing reproduction. In L. Weis, C. McCarthy & G. Dimitriadis (Eds.), *Ideology, curriculum, and the new sociology of education: Revisiting the work of Michael Apple* (pp. 37-46). New York: Routledge, Taylor and Francis Group.

Ares, N. (2006). Political aims and classroom dynamics: Generative processes in classroom communities. *Radical Pedagogy, 8*(2), 19.

Bishop, J. H. (1989). Why the apathy in American high schools? *Educational Researcher, 18*(1), 6-12, 42.

Brown, R., & Hirst, E. (2007). Developing an understanding of the mediating role of talk in the elementary mathematics classroom. *Journal of Classroom Interaction, 41/42*(2/1), 18-28.

Choppin, J. (2004). *Eliciting mathematically substantive discussions.* Paper presented at the Psychology of Mathematics & Education of North America, Toronto, Ontario, Canada.

Common Core State Standards Initiative. (2010). Common Core State Standards for

Mathematics. Retrieved from http://www.corestandards.org/the-standards/mathematics/introduction/standards-for-mathematical-practice/

Creswell, J. W. (2009). *Research design : Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Denzin, N. K. (1997). *Interpretive ethnography: ethnographic practices for the 21st century*. Thousand Oaks, CA: Sage Publications.

Disney Enterprises Inc./Pixar Animation Studios (Producer). (2001). *Monster's Inc*. [DVD]. Burbank, CA: Buena Vista Home Entertainment, Inc.

Fisher, D., Frey, N., & Lapp, D. (2011). Focusing on the participation and engagement gap: A case study on closing the acheivement gap. *Journal of Education for Students Placed at Risk, 16*, 56-64. doi: 10.1080/10824669.2011.545976

Fleischman, S., & Heppen, J. (2009). Improving low-performing high schools: Searching for evidence of promise. *The Future of Children, 19*(1), 105-133.

Freire, P. (1970). *Pedagogy of the oppressed* (M. B. Ramos, Trans. 30th Anniversary ed.). New York: The Continuum international Publishing Group, Inc.

Goos, M. (2004). Learning mathematics in a classroom community of inquiry. *Journal for Research in Mathematics Education, 35*(4), 258-291.

Grant, M. R. (2009). *Examining classroom interactions and mathematical Discourses*. (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (AAT 3393217)

Haberman, M. (1991/2010). The pedagogy of poverty versus good teaching. *Phi Delta Kappan, 92*(2), 81-87.

Hand, V. (2010). The co-construction of opposition in a low-track mathematics classroom. *American Educational Research Journal, 47*(1), 97-132. doi: 10.3102/0002831209344216

Hardré, P. L., Crowson, H. M., Debacker, T. K., & White, D. (2007). Predicting the academic motivation of rural high school students. *Journal of Experimental Education, 75*(4), 247-269.

Hardy, L. (2005). How rural schools are tackling the twin problems of isolation and poverty: A place apart. *American School Board Journal, 192*, 18-23.

Hendrickson, K. A. (2012). Student resistance to schooling: disconnections with education in rural Appalachia. *High School Journal, 95*(4), 37-49.

Hiebert, J., Carpenter, T. P., Fennema, E., Fuson, K. C., Wearne, D., Murray, H., . . . Human, P. (1997). *Making sense: Teaching and learning mathematics with understanding*. Portsmouth, NH: Heinemann.

hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. New York: Routledge.

Johnson, L. M. (2006). Elementary school students `learning preferences and the classroom learning environment: Implications for educational practice and policy. *Journal of Negro Education, 75*(3), 506-518.

Kilpatrick, J., Swafford, J., Findell, B., National Research Council, & Mathematics Learning Study Committee. (2001). *Adding it up : Helping children learn mathematics*. Washington, DC: National Academy Press.

Lather, P. (1993). Fertile obsession: Validity after poststructuralism. *Sociological Quarterly, 34*(4), 673-693.

Martin, T. S., & Herrera, T. (2007). *Mathematics teaching today: improving practice,*

improving student learning: Reston, VA: National Council of Teachers of Mathematics.

Moses, R. P., & Cobb, C. E., Jr. (2001). *Radical equations: Civil rights from Mississippi to the Algebra Project*. Boston, MA: Beacon Press.

Moses, R. P., Dubinsky, E., Henderson, D. W., & West, M. (2013). R&D: The development of student cohorts for the enhancement of mathematical literacy in under served populations. Retrieved from U.S. Department of Education website: https://reporting.research.gov/rppr-web/rppr?execution=e1s12

Nasir, N. S. (2002). Identity, goals, and learning: Mathematics in cultural practice. *Mathematical Thinking & Learning, 4*(2/3), 213-247.

National Council of Teachers of Mathematics. (1991). *Professional standards for teaching mathematics*. Reston, VA: Author.

National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: Author.

National Council of Teachers of Mathematics. (2009). *Focus in high school mathematics: Reasoning and sense making*. Reston, VA: Author.

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Russell, S. J. (2012). CCSSM: Keeping teaching and learning strong. *Teaching Children Mathematics, 19*(1), 50-56.

Sfard, A. (2001). Learning mathematics as developing a Discourse. In R. Speiser, C. Maher & C. Walter (Eds.), *Proceedings of 21st Conference of PME-NA* (pp. 23-44). Columbus, OH: Clearing House for Science, Mathematics, and Environmental Education.

Sfard, A. (2007). When the rules of discourse change, but nobody tells you: Making sense of mathematics learning from a commognitive standpoint. *Journal of the Learning Sciences, 16*(4), 565-613.

Sfard, A., & Kieran, C. (2001). Cognition as communication: Rethinking learning-by-talking through multi-faceted analysis of students' mathematical interactions. *Mind, Culture & Activity, 8*(1), 42-76.

Strutchens, M. E., & Quander, J. R. (Eds.). (2011). *Focus in high school mathematics: Fostering reasoning and sense making for all students*. Reston, VA: National Council of Teachers of Mathematics.

Sullivan, P., Tobias, S., & McDonough, A. (2006). Perhaps the decision of some students not to engage in learning mathematics in school is deliberate. *Educational Studies in Mathematics, 62*(1), 81.

Tyner-Mullings, A. R. (2012). Central Park East Secondary School: Teaching and learning through freire. *Schools: Studies in Education, 9*(2), 227-245.

United States Census Bureau. (2013). Measuring America - people, places, and our economy. Retrieved from http://www.census.gov/geo/reference/ua/uafaq.html

Walker, E. N. (2006). Urban high school students' academic communities and their effects on mathematics success. *American Educational Research Journal, 43*(1), 47-73.

Wolcott, H. F. (2001). *Writing up qualitative research*. Thousand Oaks, CA: Sage.

The Young People's Project: Math Literacy and Social Change. (n.d.). Retrieved from http://www.typp.org/

INCREASING THE WRITING PERFORMANCE OF URBAN SENIORS PLACED AT-RISK THROUGH GOAL-SETTING IN A CULTURALLY RESPONSIVE AND CREATIVITY-CENTERED CLASSROOM

Brittany Estrada
Azusa Pacific University

Susan Warren
Azusa Pacific University

ABSTRACT

Efforts to support marginalized students require not only identifying systemic inequities, but providing a classroom infrastructure that supports the academic achievement of all students. This action research study examined the effects of implementing goal-setting strategies and emphasizing creativity in a culturally responsive classroom (CRC) on urban students placed at-risk of failure in a 12th grade writing classroom. Qualitative and quantitative data include pre-and post-surveys, student writing assignments, grades, pre-and post-focus groups, and teacher-researcher observations. Data indicate writing goals, creativity, and a CRC positively improved the independent writing performance of students and developed their confidence in and value for the writing process. This study will assist educators as they design learning environments and utilize strategies to teach writing to marginalized students.

Introduction

The ability to write clearly and effectively is paramount in determining an individual's success (The National At-Risk Education Network, 2013), yet many students in United States public schools, specifically high school seniors, struggle with writing skills (Graham & Harris, 2007; Lenhart, Arafeh, Smith, & Macgil, 2008; Newell, Koukis, & Boster, 2007). A national computer-based writing assessment in 2012 with 28,100 seniors revealed that only 24% met proficiency and 3% were advanced, while 52% attained a basic level and 25% scored below basic. This writing deficiency in the majority of seniors frequently leads to failure and dropping out of school (The National At-Risk Education Network, 2013).

The lack of writing proficiency is even greater in urban communities where school populations are primarily comprised of students of color and socio-economically marginalized youth who academically trail behind their White middle class and/or affluent counterparts (National Center for Education Statistics, 2012). These urban students, historically affected by education disparities (Ladson-Billings, 2006), are often illiterate in writing and not provided the support to improve. Ladson-Billings (2006) refers to the educational inequalities, inadequacies, and consequences that many urban students experience as an *education debt*. These students are victims of a debt that represents a systemic lack of investment in the educational growth of its disenfranchised pupils. The opportunity for a quality educational experience is diminished due to two phenomena: (a) ongoing funding inequities that affect resources in poor schools and (b) increasing resegregation of urban school communities.

Inherent in the idea of educational debt is the understanding that the educational system creates conditions in urban schools in which the students are placed at risk of failure. Talent sorting and an emphasis on test scores have resulted in schools frequently placing the blame for students' writing and school struggles on students' family makeup and socio-economic status.

These students are often viewed as deficient based on personal background and characteristics, rather than placing the blame on the schools' inability to support them (Gay, 2010; Ladson-Billings, 1995; Sanders, 2000).

Despite the adverse conditions in many urban schools, educators can transform their perceptions of students placed at risk and create a learning environment that supports students to be academically successful and confident in the midst of an oppressive educational system (Gay, 2010). The current action research study addresses this educational dilemma in a writing classroom by assessing various strategies to teach writing, including developing a caring and responsive environment, goal-setting, and using a creativity-centered approach with academically struggling urban adolescents who have been placed at risk of failure. The following research question guided the study: What are the effects of creating a culturally responsive writing classroom, implementing goal-setting, and using creativity with 12th grade urban students placed at-risk?

Literature Review

Federal assessments in the United States began to show a drop in students' abilities to read and write in the early 1980s (Yao, 2006). Despite recent data showing some improvement, many students, specifically seniors, cannot write proficiently. National writing assessments with seniors indicate that, on a scale of 0-300 with a mean proficiency score of 173, Caucasian students scored an average of 159, Asian students 158, students of two or more races 158, American Indian students 145, Native Hawaiian students 144, Hispanic students 134, and Black students 130 (National Center for Education Statistics, 2012). Students scoring significantly below the mean in writing, particularly the Hispanic and Black students, are further marginalized as they struggle through high school with a lack of support.

That large number of marginalized students leave high school unprepared for college or life is perplexing to many teachers, policy makers, and constituents of public schools who may seek simple remedies to *fix* this *problem*. Simple cures or one-size-fits-all solutions do not support the range of students or meet their needs in the classroom. Beghetto and Kaufman (2010) explain the severity of oversimplifying the needs of students in traditionally underperforming schools, citing examples of adopting teacher-proof curricula in hopes of boosting student performance. Historic failure of such reforms suggests that the attitude, beliefs, and traditionally oppressive classroom structures play the largest role in student achievement (Gay, 2010; Wentzel, 2009). Therefore, culturally responsive teaching, goal-setting, and creativity will be defined and outlined as the methods utilized to structure an environment that promotes empowerment and academic growth in writing for marginalized students.

Culturally Responsive Teaching

The goal of culturally responsive teaching is to support diverse urban youth through cultural affiliation, academic achievement, and personal empowerment (Irvine & Armento, 2001). Culturally responsive teachers understand the strong role of culture in the educational system and place culture at the core as they analyze techniques for improving the performance of underachieving, disenfranchised students. These educators largely believe that patterns in academic achievement among groups of students are not a result of individual limitations but

instead are due to the impact of institutional assumptions, structures, procedures, and operational styles of schools, classrooms, and the larger society (Banks, 2006; Gay, 2010).

Culturally responsive educators purposefully integrate the experiences and cultural orientations of students from diverse ethnic, racial, and economic backgrounds into their teaching. They demonstrate caring; communicate in ways to optimize the success of their students; design curricula that are inclusive, meaningful, and connected to students' lives; and utilize effective strategies that support their students' learning (Gay, 2010). These teachers honor their students and their families and seek to develop the talent potential of underachieving diverse students, placing them at promise instead of at risk (Boykin, 2002; Ladson-Billings, 2009).

Goal-Setting

Goal-setting supports students in understanding that learning is a tool used to mature to higher levels of understanding (Ames et. al., 1992; Maher & Zusho, 2009; Nicholas, 1984). Students' beliefs, perceptions, and choices of action depend on the goals toward which they are working. Specific goals direct students' decisions to be engaged, to remain persistent, and to feel a sense of capability with a certain set of skills or abilities within their environment (Maher & Zusho, 2009). While focusing on the process of learning, students are empowered to commit and apply themselves toward an action with confidence that participating in the process is just as valuable as producing an end result. Redirecting the success of student performance in the classroom, however, requires the perspective of value changing from *product* to *process* (Palmer, 2007). Both change and success start from knowing a valued destination and goal-setting provides a tangible strategy for reaching that destination (O'Brien, 1999).

The emphasis on standardized testing in schools has placed a focus on outcomes, pressuring students to find value only in their ability to produce rather than the growth within the process of learning (Maher & Zusho, 2009). Discouraged by obstacles to achievement, many students in urban schools become marginalized and are placed at risk of failing (Gay, 2010). They lose hope of ever being successful. Furthermore, product-oriented assessments often prohibit the opportunity for students with special needs or English language learners to develop an appreciation for the long-term value of the learning process (Ames, Schunk, & Meece, 1992).

Struggling students, successful students, and students caught in the middle all need to be motivated to succeed in school, and goal-setting has been one strategy to monitor the support of motivation in the classroom. The process of goal-setting and achievement of goals creates personal arousal that stimulates contentment with their academic placement (Maehr & Zusho, 2009; Schunk & Pajares, 2009). While there is little in the research about goal-setting in urban settings, the connection with motivation and achievement suggests that this is a worthy area to explore.

Creativity-Centered Classroom Environments

Creativity allows individuals to take knowledge, challenge it, and recreate it to benefit the community (Beghetto & Kaufman, 2010; Kaufman, 2009). Creativity in this study refers to "the interaction among *aptitude, process, and environment* by which an individual or group produces a *perceptible product* that is both *novel and useful* as defined within a *social context*" (Plucker, Beghetto, & Dow, 2004, p. 90, emphasis in original). Students in a creativity-centered classroom

are encouraged to undertake this process in an environment where they feel safe to take risks (Kaufman, 2009). Four teachable skills that cultivate creativity in the classroom are specifically used in the current study (Fredericks, 2005):

1. Fluency: the ability to produce large numbers of ideas/divergent thinking.
2. Flexibility: the ability to make connections between unrelated concepts.
3. Originality: the ability to make unique ideas.
4. Elaboration: the ability to manipulate an idea until it is well formed.

The goal of creativity in the classroom is not to generate a one-size-fits all model, but rather to design an environment that effectively enhances the curriculum and helps students identify their strengths (Plucker et al., 2004). All too often marginalized students bury their creative instincts to fit into an expected mold created by the school system (Baldwin, 2010). The creative traits that such students throw away are very often the coping methods that keep them from giving up. For example, the humor and symbolism traits in African American students can be capitalized on as a means to develop new ideas or criticism of certain literary works (Baldwin, 1985).

The importance of creativity in the classroom is evident. In the midst of the scripted classroom, there is a necessity for a fresh representation of ideas that is relevant and connects to the lives of diverse urban students (Beghetto & Kaufman, 2010; Kaufman, 2009). Creativity needs to be embraced in the writing classroom to eliminate the stress that prohibits students from writing well and to illuminate the students' strengths. Focusing on these creative skills gives students the opportunity to realize that writing is an achievable process.

Method and Data Sources

This action research study employs a mixed methods approach. The teacher conducting an action research project also serves as the researcher. S/he was thus able to implement new strategies as she documented and evaluated the actions within the high school writing classroom. "Action research is based on a systematic, reflective, and collaborative process that examines classroom and school issues to plan, implement, and evaluate change" (Warren, Doorn, and Green, 2008, p. 261).

Participants

The participants in this study were 24 female and 29 male students in two sections of an Expository Writing course developed to provide senior high school students with opportunities to advance their writing and analysis skills. The classes met in a Southern California comprehensive high school with a student population of 2,221, of which 452 were seniors. The school suspension rate was 52.7% and the dropout rate was 29.4%. Only 27% of the high school students scored proficient or advanced in English Language Arts based on the most recent state assessments. The school was located downtown in a large city with 213,295 residents, of which 20.3% had less than a high school degree, 41.8% spoke Spanish in the home, and 30% lived under the poverty level (U.S. Census Bureau, 2014). The 53 students in the study self-identified as 70% Hispanic, 19% African American, 9% White (non-Hispanic), and 2% Asian. All participants were socio-economically disadvantaged based on qualification for free/reduced

lunch, two students were teen parents with an infant, and five seniors had previously been classified as English learners. Thirty-two (60%) of the students were failing this class before the research was implemented and 43 (81%) failed their first writing assignment prior to the onset of the study, which included 39 of them not completing the assignment.

Procedure

Writing is a complex process which requires students to work through multiple cognitive levels (Levine, 2003). Since most of the students had been academically unsuccessful in the writing class and many had experienced failure, the teacher first created a classroom environment in which students felt respected, appreciated, and valued. Implementing culturally responsive teaching included developing a writing curriculum that connected with the students' lives, engaged them, and encouraged them to feel safe to take risks with their writing (Gay, 2010). Creativity complemented the curriculum allowing students to focus on the "novel and personally meaningful interpretation of experiences, actions, and events" in their writing (Beghetto & Kaufman, 2010, p. 195). Finally, the focus of the class was on students setting performance-oriented rather than product-oriented goals. It is important to give challenging goals that are also attainable by the students, provide them with skills so that the tasks do not undermine the students' progress, and motivate them to perform at a higher level (Levin, 2003; Schunk & Pajares, 2009).

The students participated in the following activities during a 45-minute writing class over a 10-week period. The activities integrated the four skills of creativity which are fluency, flexibility, originality, and elaboration (Fredericks, 2005). Students set weekly goals in order to manage the workload and obtain satisfaction from accomplishing smaller tasks.

First activity: Culturally responsive and creative dialogue. The teacher explained the focus of the research study to the students during the first week and reviewed it during the fourth and tenth weeks of the study. This included how the classroom structure was changing to be more responsive to students and how creativity and goal-setting would be integrated. She intentionally used the words *creativity*, *writing process, originality*, *divergent thinking,* and *risk takers* in the classroom to describe the students, their assignments, and the writing process. She subsequently encouraged the students to intentionally use these words as well.

Teamwork, engagement, and relevant experiences describe the culturally responsive writing classroom. The teacher encouraged students to ask questions, research topics of interest to them and beneficial to their community, and even question the processes of research and writing. Every Friday students participated in a Socratic circle which allowed the students to dialogue with one another and the teacher as they shared information and expressed their concerns about their work. During this activity the teacher also conversed with the seniors about the negative influences in the school climate and how others in the school community perceived their achievement. Most importantly, through constant discussion and feedback, the teacher encouraged the students to work beyond what had been expected of them in the past (Gay, 2010).

Second activity: Senior project goal sheet. Students were given a worksheet at the beginning of the study that listed each assignment and writing goal for the ten-week period. The sheet was structured like O'Brien's (1999) goal-setting checklist which monitored the students' assignments listing them as completed on time, late, or incomplete. Students were responsible for monitoring and grading their own senior project goal sheet.

The goal sheet empowered the students to be honest not only with the teacher but with themselves. It explicitly broke down the writing assignments that were to be finished at a specific

time during the ten weeks so students could manage and compare their drafts in a timely manner. The students and their peers were encouraged to work at their own pace and assess progress.

Third activity: Weekly creative environment activities. Based on Kaufman's (2009) creativity in the classroom activities, divergent thinking and flexibility were promoted in the classroom by allowing students to choose the location of the classroom (indoors or outdoors), seating arrangements, and the amount of light or noise in the classroom (Amabile & Gryskiewicz, 1989). The following are examples of the creative activities performed with the students in this study. First, the students played a word game, *Mind Dump,* once a week to teach fluency and flexibility with the vocabulary relevant to their individual research and writing. This game called for students to write down as many words or phrases that came to mind in 60 seconds related to the word the teacher or student wrote on the board that day. Second, the seniors also played charades, acting out the vocabulary words to practice originality. Third, to teach elaboration, the students held mini-Socratic circles at the end of each week to discuss and give each other feedback on the progress, barriers, questions, successes and struggles in their research or in life.

These specific tasks and others were included to promote growth of the students' cognitive (intellective) and affective (feeling) development. Cognitive-intellective behaviors include fluent thinking, original thinking, and elaborative thinking, while affective-feeling behaviors include risk taking, complexity, curiosity, and imagination (Williams, 1970). These activities took a substantial amount of classroom time, but allowed the students to academically diverge from the pressure of the writing process while training their brains to expand.

Fourth activity: Creative research project. The teacher assigned all seniors a final research project for the spring semester. The students were asked to choose a research question that was original and valuable to their community. Students had the option to research and write with a group or individually (Graham & Harris, 2007; Levine, 2003). The creative research project consisted of an argumentative paper as well as a creative presentation to be presented to their peers (Guthrie & Codington, 2009).

The teacher asked the students to be creative and flexible in choosing how they wanted to share the information they gathered and what information they believed was valuable to share. The students did not receive sample lists or guidelines for the creative presentation, but they were provided with explicit guidelines, expectations, and goals for the research essay. The teacher assessed the students' complete cycle of creative thinking through their ability to internalize the research, share their findings, and explain its importance to the surrounding community (Baldwin, 2010).

Fifth activity: Correction goal sheet and peer review check list. During the last six weeks of the study, students were asked to complete three drafts of the research essay. Using a rubric, the students evaluated their peers on eight specific writing performance skills during weeks three, five, and seven. They also used a peer review checklist that focused on corrections and feedback for improvement (Frank, 1979; Levin, 2003).

The students utilized a correction goal sheet as a tool for self-evaluation. The authors of the draft were able to grade their own work based off of a four point Likert scale with 0 meaning "need help with this" and 3 meaning "personal best." While the three drafts were recorded as credit or no credit, feedback in the form of grades was given to encourage students to strive for excellence. The feedback (grade) for each draft was based on the combined evaluation from a peer, the author, and the teacher. The correctional goal sheets supported students' growth in the process of writing.

Data Sources and Analysis

A mixed method of data collection included five sources of data from the students. Descriptive statistics were used in analyzing the quantitative data, while a constant comparison methodology was utilized for the qualitative findings. The quantitative data were compared to the qualitative results.

Quantitative

The first source of quantitative data were pre- and post- surveys with 16 Likert scale items (Newell, Koukis, & Boster, 2007) asking students if they liked writing, thought they were a good writer, felt comfortable asking their teacher for help, planned prior to writing, and proofread their writing. The second quantitative data source was the three student essays. Students completed the first essay prior to the study. Students wrote the second essay at the beginning of the study with a few of the strategies implemented. The third essay was written after the goal-setting and creativity strategies were implemented in the classroom. Data from the essays revealed areas of student achievement through the percentage of students not submitting the assignment, scores based on a rubric scale of 5-10 (10 being the highest) to measure eight specific writing skills, and overall essay grades based on a percentage of 1-100. Analysis of the quantitative data utilized descriptive statistics to summarize the sample (Trochim, 2000) and indicate any changes in student perceptions or performance throughout the study.

Qualitative

Three sources of qualitative data were collected and analyzed. The first data source was the pre- and post- open-ended survey responses with questions gathering information about the students' general interest in writing, topics, and perceptions of the teacher's role. The second source was the pre- and post-focus group interviews in which students were asked four open-ended questions at the beginning and end of the study about the most difficult part of writing, what skills they learned in school that helped them with writing, what they did when they felt they could not complete a writing assignment, and any other comments they had about writing. The third qualitative data source was the teacher-researcher's observation field notes taken during student-teacher sessions and creative activity times.

Analysis of the qualitative data utilized a constant-comparison method (Corbin & Strauss, 2008). A team of two researchers collaborated in determining the initial coded categories. By process of seeking consensus, they re-confirmed, re-named, or re-grouped the categories as needed to determine the aspects of change, if any, perceived in the students through their experience in the writing class that introduced cultural responsiveness, goal-setting, and creativity. The researchers triangulated the three sources of qualitative data in determining the final emerging themes.

Results

Results from the study indicate that overall this group of high school seniors who had been placed at risk of failing made substantial increases in their achievement in the writing class. Quantitative results represent improvement in writing skills and performance. Qualitative data

show growth in students' interest and confidence in writing, as well as their appreciation for writing.

Quantitative

The quantitative data indicate that students improved their academic writing performance during the study. This is evident as students reported having less difficulty with writing, a decrease in the number of students failing to complete the essay writing assignments, mastery of writing skills improved, and the number of students with passing essay grades in writing increased.

Students' perception of writing as difficult decreased. Table 1 shows a 1.67 point decrease in the number of students believing it is difficult to express themselves in writing from the beginning to the end of the ten-week study. This item out of a set of six revealed the greatest change on student perspectives about writing.

Table 1.
Student Pre- and Post- Survey Results Focused on Writing Strategies (based on four point Likert Scale)

Survey Statement	Pre	Post	Change
Question #5: It is hard to get my ideas into words when I write.	2.67	1	+1.67

The number of students who failed to complete the essay assignments decreased. Figure 1 shows a decrease in incomplete writing assignments. Thirty-nine of the participants in the study did not turn in an essay for the first assignment, resulting in 74% of the students receiving a grade of zero. Following the first assigned essay, eighteen students did not submit essay two, leaving 34% of the observed students with a failing grade. At the conclusion of the study, only one student failed to turn in the essay, meaning that 98% of the students turned in completed essays.

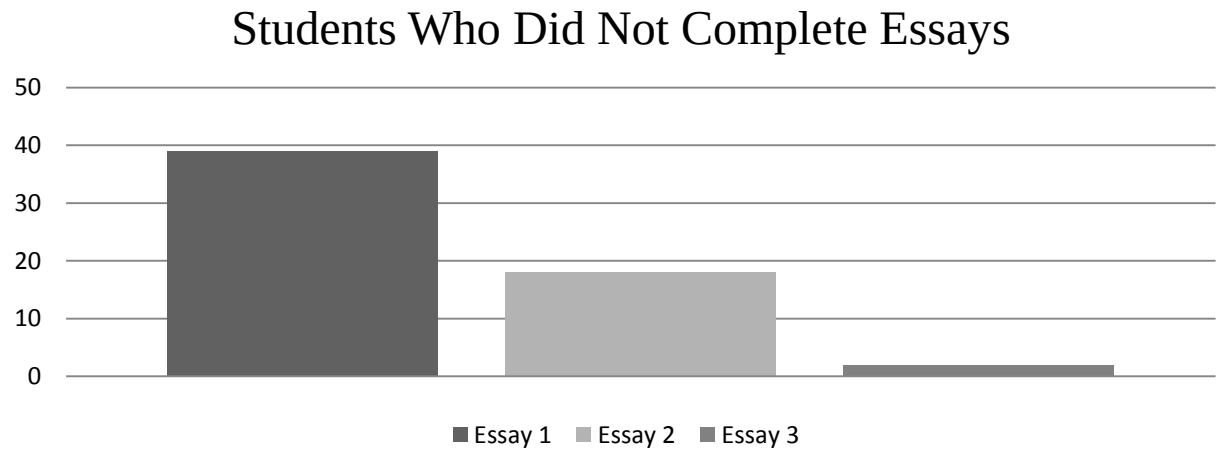


Figure 1. Number of students who did not turn in an essay.

Students' writing mastery improved. The quality of the students' writing improved in the eight areas assessed on the rubric (see Figure 2). While students made gains in all eight skill areas from the first to the third essay, the largest gains were in their ability to create a concluding sentence (3.11 point gain) and to decrease grammatical and spelling errors (2.47 point gain).

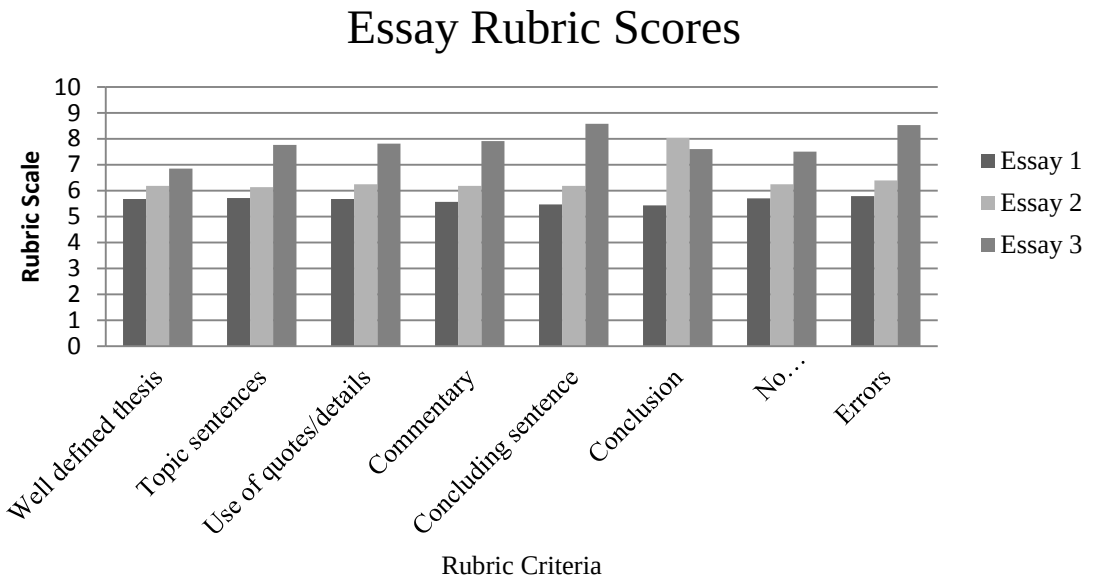


Figure 2. First, second, and third essay rubric scores of specific skills.

Increase in passing grades. Figure 3 illustrates that 77% of the participants failed the first essay, assigned prior to the study, with a D or F grade. Thirty-six percent of the students failed to receive a passing grade on the second essay, which was slightly modified using the correctional goal sheet and feedback from the prior essay. Nine percent of the students received a failing grade on the final creative writing assignment.

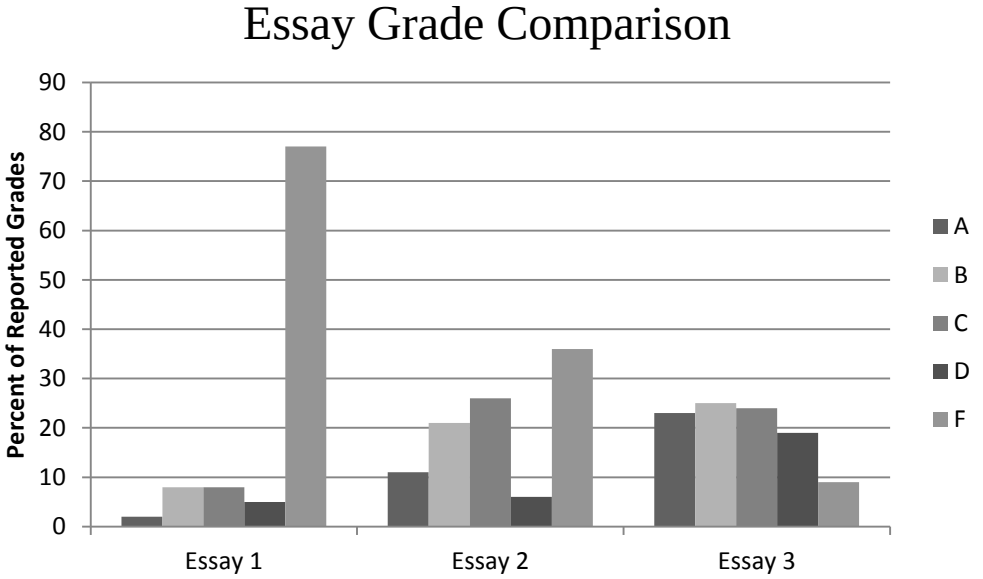


Figure 3. Students' grades by percent for essays 1, 2, and 3

Qualitative

Three qualitative themes emerged from the analysis of data. The first theme is that the students' intrinsic appreciation for writing increased. Baer and Garrett (2010) found that when students are at the focal point of the classroom and given creative resources, their performance and appreciation of writing increases. The second theme is consistent with Molden and Dweck's (2000) findings: students gained the belief that being incapable of executing a written assignment does not reflect who they are as lifelong writers. Finally, the third theme from the students supports the research that consistent feedback and self-assessment is crucial in building writer confidence and performance enhancement (Piirto, 2010).

Writing as a vehicle of expression rather than a tool of power. The pre-survey asked students, "Is writing important? Why or why not?" One student wrote "Writing is only important when you want to look like you know what you're talking about or want to act smart." This student viewed writing as a means to appear more intellectual than others. Illustrated by one student's pre-survey answer, another common range of responses indicated that writing was useless unless an individual's desired career involved writing or social status.

> In my opinion I don't feel writing is important if I want to be a doctor I'm not going to write a five paragraph essay on why their ankle is broken. I will just scribble some notes and still get paid.

The responses to the post-survey indicated an increase in the value of writing as a means to communicate interpersonal thoughts, as well as a vehicle for sharing and expressing personal feelings. One student wrote "Yes!! It's important because it's a way to express your feelings." Another wrote, "Yes, writing is important because writing is one way in which you can express your thoughts towards something." At the conclusion of the study, students' perceptions of writing included the idea that it can be a vehicle in which one can express creative and emotional thoughts.

Students' perceptions of writing changed from a talent to a process. Many students initially expressed frustration with writing and a dislike toward the writing classroom. Prior to the study, students were asked in a focus group, "Is there anything you have learned to do that makes writing easier for you? Who taught you this?" Illustrated by the sample quote below, the consistent finding for this response was the perception of writing as a difficult task and even a form of punishment:

> Writing is never going to be easy for me. I never know what to write about or how to start it. I'm not good at spelling and I think that I would rather just talk to people. Writing is just kinda dumb.

Other responses show some students' initial beliefs that writing is an inherent skill that may be connected to one's race or linguistic background. One student shared, "I've never passed an English class in my life. And don't plan on it now. I'm Mexican so how am I really supposed to be good at this stuff?" The majority of students in the study had never experienced success in the writing classroom and attributed all writing failures to personal characteristics such as native tongue, family make-up, cultural background, and innate talent. As illustrated by the quote below, in the post-focus group interview, students showed a general shift in perception toward writing as a process that can be learned, practiced, and experienced rather than an ability that

only comes naturally:

> Before this class I thought that I was the worst writer in the world. Now it is easier to write because I know that there are steps to take to make sure that my writing is good or bad. I think what really helped me though, the most, was the feedback that you [the teacher] gave and like checking up on us and our goal dates. Like when you gave us like a checklist, and a timeline and stuff, I really could see that I could do it and get help from like the homies too. It's not as bad as I thought it was really. It just takes time.

Planned feedback and self-assessment promote awareness of growth and confidence in writing. Analyzing observational field notes indicates that students appreciated being given explicit corrections on their writing as well as immediate feedback of written work. One student, after failing an advanced placement (AP) class, joined the class and commented:

> Thank you [the teacher] for actually grading my essays and writing comments on my papers where I did good and where I messed up. I took an AP English class and that teacher never told me what I was doing wrong. She would just say I got an F. I actually feel like I can go to college and write an essay without being embarrassed.

Students indicated an appreciation for explicit feedback and criticism as well as excitement in having the ability to compare their own growth and assess their level of improvement. The teacher noted:

> Two female students were talking about the comparison of their papers with excitement today. One girl said, "Yea, I'm really getting better with my quotes. I like understand how to fit them in now compared to my first essay." The other student replied, "Yea! I looked at my last essay and can't even believe I wrote that bad."

Discussion

This study's findings illustrate that students' perceptions of writing and their writing skills improved when a culturally responsive curriculum was implemented, attainable goals were set, and specific creative skills were integrated into instruction. Moreover, setting appropriate writing goals that promote progress and growth towards writing mastery motivates students to complete assignments. The findings support Kaufman's (2009) creativity theory, *The Four P's,* identifying four interconnected domains (product, process, person, and press/environment) that affect a student's mastery level. The improvement in grades and writing mastery was dependent on the comfort and support that the culturally responsive environment provided (Gay, 2010; Kaufman, 2009).

The data also demonstrate the positive effect of reciprocal student-teacher and peer-to-peer communication. The relationship between the teacher and the student must be equally important to maintain a classroom environment that promotes correctional feedback (Baer & Garret, 2010). As students expressed more confidence in the process of writing, they began to simultaneously value the importance of rough drafts and self-assessment activities. Additionally, the focus on process-oriented assessment rather than product-oriented assessment increased essay grades and writing participation.

In summary, focusing more on the creative skills of fluency and flexibility supported

students' abilities to communicate their thoughts in writing. Also, by focusing on reasonable, appropriate writing goals through the 10 week study, students were given more time to comfortably complete assignments and confidently turn these in by designated due dates. Furthermore, the practice of elaboration in Socratic circles and self-assessment in the correction goal sheet and peer review checklist increased students' abilities to identify weaknesses in their writing and address them. As a consequence, students overall grades also increased.

Conclusion and Educational Significance

Teaching students how to write requires educators to do much more than give worksheets, assign writing assignments, or show examples. Teachers must assess student interests, fears they have about writing, and the value they see in writing. Furthermore, teaching students to set goals is not a force that motivates students to perform; rather it guides students to envision their destinations. By structuring an environment that promotes creativity, the teacher is creating the opportunity to foster a deeper relationship of trust and excitement that encourages students to confront the challenge of writing rather than abandon it. Teaching creative skills in the writing classroom and assessing the process of writing rather than the product allows students to realize that their interpretation of experiences, attempts, and actions has value (Beghetto & Kaufman, 2010). Most importantly, teachers must be willing to take risks in their own classrooms and trust in the opportunity to support the achievement of marginalized, urban students.

References

Ames, C., Schunk, D. H, & Meece, J. L. (1992). Achievement goals and the classroom motivational climate. In D. H. Schunk & J. L. Meece (Eds.). *Student perceptions in the classroom* (pp. 327-348). Hillsdale, NJ: Lawrence Erlbaum Associations.

Amabile, T. M. , & Gryskiewicz, N.D. (1989). The creative environment scales: Work environment inventory. *Creativity Research Journal, 2,* 231-253.

Baer, J., & Garret, T. (2010). Teaching for creativity in an era of content standards and accountability. In R. A. Beghetto & J.C. Kaufman (Eds.), *Nurturing creativity in the classroom* (pp. 6-21). New York, NY: Cambridge University Press.

Baldwin, A.Y. (1985). Programs for the gifted and talented: Issues concerning minority populations. In F. Horowitz & M. O'Brien (Eds.), *The gifted and talented: Developmental perspective* (pp. 223-249). Washington, D.C.: American Psychological Association.

Baldwin, A.Y. (2010). Creativity: A look outside the box in classrooms. In R. A. Beghetto and J. C. Kaufman (Eds.), *Nurturing creativity in the classroom* (pp. 73-87). New York, NY: Cambridge University Press.

Banks, J. A. (2006). *Race, culture, and education: The selected works of James A. Banks.* London, UK: Routledge.

Beghetto, R. & Kaufman, J. C. (2010). *Nurturing creativity in the classroom*. New York, NY: Cambridge University Press.

Boykin, A. W. (2002). Talent development, cultural deep structure, and school reform: Implications for African immersion initiatives. In S. J. Denbo & L. M. Beaulieu (Eds.),

Improving schools for African American students: A reader for educational leaders (pp. 81-94). Springfield, IL: Charles C. Thomas.

Corbin, J. & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory.* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Frank, M. (1979). *If you're trying to teach kids how to write, you've gotta have this book!* Nashville, TN: Incentive Publications.

Fredericks, A. D. (2005). *The complete idiot's guide to success as a teacher.* New York, NY: Alpha.

Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice.* (2nd ed.). New York, NY: Teachers College Press.C.A..

Graham, S., & Harris. K. R. (2007). Best practices in teaching planning. In S. Graham, C.A. MacArthur, & J. Fitzgerald (Eds.). *Best practices in writing instruction* (pp. 119-140). New York, NY: Guilford Press.

Guthrie, J. T., & Codington, C. S. (2009). Reading motivation. In K. R. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 503-525). New York, NY: Routledge.

Irvine, J. J. & Armento, B. J. (2001). *Culturally responsive teaching: Lesson planning for elementary and middle grades*. New York, NY: McGraw-Hill.

Kaufman, J. C. (2009). *Creativity 101.* New York, NY: Springer Publishing Company.

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, *32*(3), 465-491.

Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher, 35*(7), 3-12.

Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American children* (2nd ed.). San Francisco, CA: Jossey-Bass.

Lenhart, A., Arafeh, S., Smith, A., & Macgil, A. R. (2008). Writing, technology, and teens. Washington, D.C.: Pew Internet & American Life Project.

Levine, Mel. (2003). The *myth of laziness.* New York, NY: Simon & Schuster.

Maehr, M. L., & Zusho, A. (2009). Achievement goal theory: The past, present, and future. In K. R. Wentzel & A. Wigfield (Eds.) . *Handbook of motivation at school* (pp. 77-104). New York, NY: Routledge.

Molden, D. C., & Dweck, C. S. (2000). Meaning and motivation. In C. Sansone & J.M. Harackiewicz (Eds.). *Intrinsic and extrinsic motivation the search of optimal motivation and performance* (pp. 131-159). San Diego, CA: Academic Press.

National At-Risk Education Network (NAREN). (2013). Defining at-risk. In *The National At-Risk Education Network.* Retrieved from http://www.atriskeducation.net/article-defining-at-risk/.

National Center for Education Statistics. (2012). *The Nation's report card: Writing 2011.* Washington, D.C.: U.S. Department of Education.

Newell, G. E., Koukis, S., & Boster, S. (2007). Best practices in developing writing across the curriculum program in the secondary education. In S. Graham, C.A. MacArthur, & J. Fitzgerald (Eds.). *Best practices in writing instruction* (pp. 74-98). New York, NY: Guilford Press.

Nicholas, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience task choice, and performance. *Psychological Review, 91*(3), 328-346.

O'Brien, D. (1999). *Go for the goal: The Dan O'Brien goal-setting program.* Eugene, OR: ERIC Clearinghouse on Educational Management University of Oregon.

Palmer, P. (2007). *The courage to teach: Exploring the inner landscape of a teacher's life.* San Francisco, CA: Jossey-Bass.

Piirto, J. (2010). Five core attitudes, seven I's, general concepts of the creative process. In R. A. Beghetto and J. C. Kaufman (Eds.) *Nurturing creativity in the classroom* (pp. 142-171). New York, NY: Cambridge University Press.

Plucker, J. A.,Beghetto,R. A., & Dow, G.T. (2004). Why isn't creativity more important to educational psychologist? Potential, pitfalls, and future directions in creativity research. *Educational Psychologist, 39*, 83-97.

Sanders, M. G. (2000). *Schooling students placed at risk.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Schunk, D. H., & Pajares, F. (2009). Self-efficacy theory. In K. R. Wentzel & A. Wigfield *Handbook of motivation in school* (pp. 35-53). New York, NY: Routledge.

Trochim, W. (2000). The research methods knowledge base. (2nd ed.)**.** OH: Cincinnati: Atomic Dog.

U.S. Census Bureau (2014). *2014 Demographic profile.* State and County QuickFacts. Retrieved from http://quickfacts.census.gov/qfd/states/06/0665000.html.

Warren, S., Doorn, D., & Green, J. (2008). Changes in vision: Teachers engaging in action research. *The Educational Forum*, 72(3), 260-270.

Wentzel, K. R. (2009). Students' relationships with teachers as motivational contexts. In K.R. Wentzel & A. Wigfield (Eds.). *Handbook of motivation in school* (pp. 301-322). New York, NY: Routledge.

Williams, F. E. (1970). *Classroom ideas for encouraging thinking and feeling* (2nd ed.). Buffalo, NY: D.O.K Publishers

Yao, Y. (2006). National Assessment of Educational Progress. In F. English (Ed.), *Encyclopedia of educational leadership and administration* (pp. 686-687).doi: 10.4135/9781412939584.n389.

COLLEGE ACCESS FACTORS OF URBAN LATINA GIRLS: THE ROLE OF MATH ABILITY PERCEPTIONS

Alma L. Zaragoza-Petty
University of California, Irvine

Maria Estela Zarate
California State University, Fullerton

ABSTRACT

This study investigates the role of math perceptions on the college enrollment of Latinas in urban settings. Using primarily qualitative methods, this study examines the K-12 schooling experiences of 35 Latina students who were part of a larger fifteen-year study. Students had different college enrollment outcomes despite having similarly low mathematics trajectories. Math ability perceptions prevailed as a theme that played a role in their college enrollment.

Introduction

Access to college is still an issue for many urban Latina girls (Castellanos, Gloria & Kamimura, 2006; Ginorio & Huston, 2001). Factors such as peer influence, school characteristics, parental education, socioeconomic status, linguistic characteristics, and immigrant generation have all been associated with Latino students' college enrollment. (Callahan, 2008; Ceja, 2006; Gandara, 1995; Riegle-Crumb, 2010; Perna, 2000). Academic achievement and high school preparation certainly also play important roles in determining which students go on to college (Adelman, 2005; Perna, 2000). Math achievement, in particular, has been found to be an important predictor of college enrollment (Horn & Nuñez, 2000; Crisp & Nora, 2010; Riegle-Crumb, 2010). However, some have noted limitations in applying the typically used measures of math achievement, (e.g., math test scores and math class placement), to models of Latina girls' educational outcomes (Riegle-Crumb, 2010; Riegle-Crumb, King, Grodsky, & Muller, 2012; Zarate & Gallimore, 2005). Questions remain about how best to identify math experiences and achievement factors into Latina girls' educational outcomes.

Our study seeks to address this question and we seek to expand this research by asking how urban Latina girls' perceptions of math ability differ by college enrollment, when they all had low mathematics trajectories. We aim to contribute to the body of work seeking to determine which aspects of Latina students' in urban educational contexts matter to college enrollment. We are especially concerned with girls who are often overlooked in studies of college access, including girls with low academic achievement trajectories (Malagon & Alvarez, 2010).

Literature Review

The Role of Math Achievement in College Enrollment for Latina/os

In the existing literature, mathematics achievement as early as middle school has been found to be a predictor of college enrollment (Adelman, 1999; Choy, Horn, Nuñez & Chen, 2000; Crisp & Nora, 2010; Perna & Titus, 2004; Riegle-Crumb, 2010). Taking high-level mathematics courses early on (Cabrera & La Nasa, 2000; Choy, et al., 2000; Horn & Nuñez, 2000) and having higher scores on standardized mathematics tests (Kurleander, 2006) have been

associated with greater likelihood of enrolling in college.

Although mathematics achievement has a fairly consistent and positive association with college enrollment for the general population, some have pointed to the limitations in relying on this factor as a determinant of college enrollment for Latina/o students in general (Adelman, 2005; Kurleander, 2006; Riegle-Crumb, et al., 2012; Zarate & Gallimore, 2005). For example, in studies of disaggregated samples of Latina/o students, the influence of mathematics achievement on college enrollment is not as consistent as it is for overall samples (Riegle-Crumb, 2010; Zarate & Gallimore, 2005).

Latina Girls' Math Ability Perceptions

Researchers have maintained that tracking practices in schools or school's curricular offerings often relegate Latina girls to a general or basic curriculum that does not include higher-level math classes (Oakes, 1985; Solorzano, Ledesma, Pérez, Burciaga, & Ornelas, 2002; Zarate & Gallimore, 2005). Thus, when examining the impact of math class placement on college enrollment, we may be accounting for the impact of tracking processes or schooling conditions rather than students' achievement. One of the limitations of using standardized test scores and mathematics class placement as indicators of math achievement is that they capture static points in time and may not account for students' perceptions of math ability or the affective qualities of students' mathematics trajectories over their K-12 experiences (Riegle-Crumb, et al., 2012). For example, despite having similar achievement in mathematics tests and classes, Latina girls have more negative attitudes than their male counterparts and White and African American girls, suggesting that their attitudes and perceptions about mathematics are not associated with their test scores and grades in mathematics (Catsambis, 1994). In addition, others have found that mathematics self-concepts may be a better indicator of college major and career decisions, and only partially related to or even independent of mathematics ability (Pajares & Miller, 1994; Riegle, et al., 2012; Zeldin & Pajares, 2011;).

The development or construction of math self-concepts is indeed a complex process. Yet, there is evidence that suggests math self-perceptions may be a more accurate indicator of students' long-term educational outcomes, including decisions to continue to college, than test scores or math class placement (Crosnoe, Riegle-Crumb, & Muller, 2007; Riegle-Crumb et al., 2012). Indeed, there are some apparent limitations of relying on mathematics achievement, and not self-perceptions of math ability, as a universally reliable predictor of college enrollment. In this exploration, we study a group of Latina girls whose mathematics achievement trajectories may be classified as "risk factors" in the college access literature (Croninger & Lee, 2001; Horn & Carrol, 1997; Horn & Nuñez, 2000; i), yet half of them defied this "risk" and enrolled in college. We are interested in identifying more nuanced explanations for why some of the girls went to college and others did not, despite having similarly low mathematics achievement trajectories.

Methods

Sample

This study makes use of the Latino Home School Project, a fifteen-year longitudinal study of Latino children and their families from Southern California that began in 1989. At the

beginning of the study, 121 families were randomly selected from several schools to participate in the study. After fifteen years, the retained sample consisted of eighty-three students and their families, including 38 girls. Statistical comparisons of students retained and lost over time indicate no significant differences in parental education or occupation, length of U.S. residence, or a student's early academic performance (for analyses see Zarate & Gallimore, 2005).

Data

Student interviews from years 2001 (10th grade), 2003 (12th grade), and 2004 (one year post high school) form the principal data for this study. Interviews employed a semi-structured format with a standard set of questions and probes and generally lasted 1.5 hours. All participants' interviews were audio recorded and transcribed for data coding and analysis. Generally, participants answered questions about their academic status and progress, educational and occupational aspirations and expectations.

Data Analysis

For the analysis, an inductive open coding approach was used to identify portions of text that emerged as salient themes (Coffey & Atkinson, 1996; Creswell, 2009). This analysis suggested that students often discussed their experiences in school in relation to perceptions of math. Given the link between girls' recollections of math and other schooling experiences, we used descriptive statistics to analyze mathematics course placement and standardized mathematics test scores (1st – 10^{th} grade). We then sorted students into two categories of math class placement: high and low math class placement. Participants were considered to have low mathematics class placement if their last class in high school was any class lower than Algebra II or its equivalent. Participants were considered to have high mathematics class placement if their last class in high school was Algebra II, its equivalent or higher.

From test score and math class placement groupings we developed eight groups based on possible combinations of mathematics test score trajectories, high school mathematics class placement, and college enrollment status (see Appendix). Of those eight groups, two groups stood out that had similar mathematics trajectories but different college enrollment outcomes and for whom the co-occurrence of math ability perceptions and teacher experience codes was nearly uniform: 1) The group we labeled "LLC" had low mathematics test scores and low class placement and went on to college (n = 8); 2) The group we labeled "LLNC" had low mathematics test scores and low class placement but did not go on to college (n=9). We examined data for differences between Latina girls who went on to college and those who did not (LLC v. LLNC). A prominent theme that emerged from the data analyses was the students' perceptions of math ability.

Results

Our analyses revealed that comparable numbers of Latina students with low academic trajectories did not enroll in college (LLNC, n = 9) as compared to those who did enroll in college (LLC, n=8). We further sought to examine *why* these two groups of girls, with similarly low academic trajectories, had divergent educational outcomes. Based on the differences in these findings, we more closely examined what themes were prevalent between these two groups of

girls. A prominent theme that emerged was *how* college and non-college going girls discussed their perceptions of math ability.

Perceptions of Mathematics Ability

We observed that the ways that college and non-college going girls talked about math classes and their math ability (self-perceptions) was a theme that differentiated these two groups. Since all the girls performed poorly in math throughout their schooling, it was no surprise that they all generally had negative recollections of their exposure to math content. However, the college girls talked about math in terms of its difficulty and their lack of mastery of the content. Non-college girls, on the other hand, talked emotionally about hating mathematics and associated their performance in math with their own learning potential. The ways both of these groups of girls' experienced math indicated that college and non-college going girls had distinct perceptions of their math ability. The following participant cases illustrate how the girls differently coped with their difficult math trajectories.

For example, the following excerpt illustrated how a non-college going girl, who despite doing well in other classes, decides she "doesn't know nothing" because she does not understand mathematics; yet, she realizes the importance of mastering the subject:

> I'm dumb when it comes to mathematics, for real. It doesn't interest me, what am I gonna use mathematics for, but you need mathematics for everything man. For reals, but one of my favorite subjects, my senior year, was Civics. I would get into it in class, like really interesting. History, that, just Mathematics I always hated Mathematics… 'cause I don't know nothing, I don't know, cause I don't know I wouldn't get it. No matter how many times they would explain it to me I wouldn't get it.
>
> —Participant 110, LLNC

Other non-college girls described mathematics as the only subject in which they struggled and avoided. In the following excerpt, another non-college going girl describes how she excelled in other classes but "didn't like" mathematics and did not want to attend that particular class.

> I was really bad at math, horrible. My history classes, my government classes, my English classes, I was like in a special program where we would get a whole lot of English and a whole lot of philosophy and psychology and I was really good at it. I liked the classes. The bad thing about me is that I would get really, really good grades in those classes and in my math classes, and chemistry I would do really bad because I didn't like it. I didn't even want to show because I hated it.
>
> —Participant 005, LLNC

In contrast, girls who later enrolled in college spoke about their struggles in math as a challenge that they were learning to overcome, were developing strategies to improve their math grades, or simply did not see their poor performance in math as indicative of their potential. For example, one college-going girl (Participant 098, LLC) learned that taking each math class twice was the answer to her struggles in math:

> The math class [in college] is easy, I think it's a little bit easier – because a lot of things for

> me, the second time for me it's easier… I didn't do that good [in high school] (laughing). I know because I took algebra twice and I took geometry twice and everything just worked out that way… [So, you think that the classes you are taking are going to prepare you for what you want to do in the future?] Math, no. [Why not?] Math no, I see no point in it. Every time I have a math class … even though I never did good the first time, I knew I was going to get it the second time around.
>
> —Participant 098, LLC

In another illustrative example, a college-going girl developed a strategy to improve her math grades by seeking help from extended family members. In the following excerpt, Participant 112 describes her challenging experiences in mathematics classes and details how her uncle, who has a college education from Mexico, was "always try[ing] to help me out," even if his assistance was not well received in school:

> My uncle would be like do this and you get the answer, but I would get marked down because I didn't show everything…I explained it to one of my teachers and she was like you have to do it this way. You have to show everything. He [the uncle] didn't know the other way, so I kind of got stuck that way."
>
> —Participant 112, LLC

Generally though, college-going girls simply did not see their poor performance in math as indicative of their academic potential. When asked how she did academically in school, Participant 108 recalls that "elementary was fun and stuff. It was like add and subtract stuff but in junior and high [school] you need to know how to add and subtract and multiply and do fractions. I knew all that stuff." Although she did not feel challenged by the math level she was in, she felt prepared for the demands of the math classes she took.

Whereas college girls' self perceptions of their academic ability appear to not be injured by their poor math performance, non-college going girls described their "hate" and dislike for math repeatedly. Unfortunately, these negative experiences in high school also appeared to influence how they viewed their transition to college, as evidenced by the words of one non-college going girl (Participant 062):

> I'm just gonna waste my time there [college] you know, porque digo (because I say) ok, if I go to [a community college], four more years of high school - oh my god, Ay como yo soy tan bruta, (how, I am so stupid?) no I can't do it.
>
> —Participant 062, LLNC

Discussion and Conclusion

This study sought to address the factors that contributed to college enrollment decisions of Latina students with low mathematics trajectories. Our analysis revealed that perceptions of math ability contributed to the college preparation and enrollment of a group of urban Latina students. In examining within group differences among a similar group of Latina students we provide further evidence of the significant role that perceptions of math ability may more accurately reflect these students' persistence in school.

An objective of this study was to understand how urban Latina girls' perceptions of math

ability differ by college enrollment, when they all had low mathematics trajectories. Perceptions of their math ability contribute to the college enrollment decisions of Latinas with low mathematics trajectories living in an urban context. Although these findings are based on a small sample and not generalizable, these findings problematize the practice of solely relying on academic trajectories to understand why some Latina girls go to college and others do not.

Implications for Practice, Policy, and Future Research

We suggest this study is particularly timely for the national promotion of math and science careers among women and students of color and the findings of this study have implication for schooling practices and future research. That perceptions of math ability can lessen or obfuscate the influence of math achievement on college enrollment is indeed an opportunity to explore how various dimensions of schooling practices can support students' perceptions of math ability. At the very least, conclusions and verbalizations about students' math abilities, such as "math person," "mathematically-gifted," or "mathematically-inclined" should be avoided and discouraged as a matter of organizational practice. Although this may seem as a simplistic proposal, many of us who have worked in school settings know that such labels can be used to shape teachers expectations of students and as explanations for student disengagement from math content. Such labels, especially those based on high-stakes standardized testing results can be harmful to students and negatively influence students', teachers', and parents' expectations about math ability. Instead, teachers and school should explore the ways in which instilling curiosity and affinity for math becomes a universal expectation. We liken this goal to the "college for all" movement in which college expectations become uniform expectations and objectives of all school personnel.

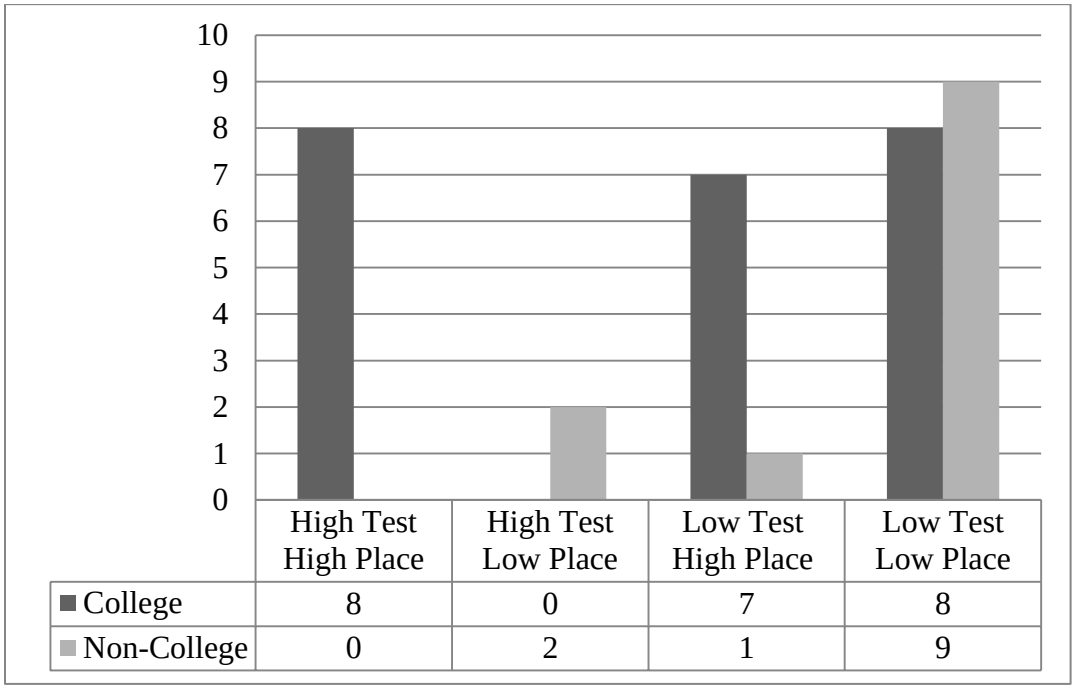
We argue that improving urban Latina girls' self-perceptions of math ability involves more than frequent verbal praise and suggest that structural changes related to how students are organized in school and classes may be more potent in improving support for positive math self-perceptions. Namely, tracking or grouping practices where students become aware of negative evaluations of their math ability should be avoided before the upper levels in high schools. Relatedly, high-stakes assessments of math content should not be used to track students before high school. Such assessments may not be accurate valuations of students' math potential and may negatively and pre-maturely inform students' self-perceptions of math. In fact, we extend this argument to teachers and challenge schools and school districts to extend how math teaching is assessed beyond relying on standardized tests. In this time of increasing emphasis on teacher merit-based pay, largely structured on results of standardized test performance, expanding "teacher performance" to include assessments of how positive math (and overall academic) self-perceptions are supported in instruction and classroom climate can be beneficial to both teachers and students. Given the emergence of research supporting the importance of math self-perceptions to long-term outcomes, instilling positive math self-perceptions should be an instructional objective.

To support these objectives, we propose that education researchers continue examining and identifying ways in which teachers can support the development of positive self perceptions of math ability early in the academic careers of urban Latina/o girls. We also speculate that the impact of instructional strategies supporting positive math self-perception varies by students' gender, race, class status, and school characteristics and that rigorous, multi-methodological exploration of diverse strategies can inform classroom practices. Finally, missing in existing

discussions of the emergence or development of math self-perceptions is the influence of families' perceptions of students' ability or parental expectations of math performance. We speculate that families and parents influence how students develop and shape their expectations and perceptions of math ability.

Appendix

Test Score and Math Class Placement Groupings



	High Test High Place	High Test Low Place	Low Test High Place	Low Test Low Place
College	8	0	7	8
Non-College	0	2	1	9

Eight participant groups by college enrollment and low or high math test scores and class placements:

1. HHC: College enrollment, both high math test scores and class placement
2. HHNC: No college enrollment, both high math test scores and class placement
3. HLC: College enrollment, high math test scores and low class placement
4. HLNC: No college enrollment, high math test scores and low class placement
5. LHC: College enrollment, low math test scores and high class placement
6. LHNC: No college enrollment, low math test scores and high class placement
7. LLC: College enrollment, low math test scores and low class placement
8. LLNC: No college enrollment, low math test scores and low class placement

References

Adelman, C. (1999). *Answers in the toolbox: Academic intensity, attendance patterns and bachelor's degree attainment*. Washington, D.C.: U.S. Department of Education.

Adelman, C. (2005). *Moving into town—and moving on: The community college in the lives of traditional-age students*. Washington, D.C.: U.S. Department of Education.

Cabrera, A. F., & La Nasa, S. M. (2000). Understanding the college-choice process. *New*

Directions for Institutional Research, *2000*(107), 5–22.
Callahan, R. M. (2008). Latino language-minority college going: Adolescent boys' language use and girls' social integration. *Bilingual Research Journal: The Journal of the National Association for Bilingual Education*, *31*(1-2), 175–200.
Castellanos, J., Gloria, A. M., & Kamimura, M. (2006). *The Latina/o pathway to the Ph.D.: Abriendo caminos*. Sterling, VA: Stylus Pub.
Catsambis, S. (1994). The path to math: Gender and racial-Ethnic differences in mathematics participation from middle school to high school. *Sociology of Education*, *67*(3), 199–215.
Ceja, M. (2006). Understanding the role of parents and siblings as information sources in the college choice process of Chicana students. *Journal of College Student Development*, *47*(1), 87–104.
Choy, S. P., Horn, L. J., Nuñez, A. M., & Chen, X. (2000). Transition to college: What helps at-risk students and students whose parents did not attend college. *New Directions for Institutional Research*, *2000*(107), 45–63.
Creswell, J. W. (2008). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, CA: SAGE Publications.
Crisp, G., & Nora, A. (2010). Hispanic student success: Factors influencing the persistence and transfer decisions of Latino community college students enrolled in developmental education. *Research in Higher Education*, *51*(2), 175–194.
Croninger, R. G., & Lee, V. E. (2001). Social capital and dropping out of high school: Benefits to at-risk students of teachers' support and guidance. *Teachers College Record*, *103*(4), 548–581.
Crosnoe, R., Riegle-Crumb, C., & Muller, C. (2007). Gender, self-perception, and academic problems in high school. *Social Problems*, *54*(1), 118–138.
Coffey, A. J., & Atkinson, P. A. (1996). *Making Sense of Qualitative Data: Complementary Research Strategies*. Thousand Oaks, CA: SAGE Publications.
Gandara, P. (1995). *Over the ivy walls* (p. 151). Albany, NY: SUNY Press.
Ginorio, A., & Huston, M. (2001). *¡ Sí, se puede! Yes, we can* (p. 88). Washington D.C.: American Association of University Women Educational Foundation. Retrieved from http://www.aauwnorthstar.org/SiSePuede_spanish.pdf
Horn, L. J., & Carroll, C. D. (1997). *Confronting the odds: Students at risk and the pipeline to higher education* (p. 72). Washington D.C.: U.S. Department of Education.
Horn, L. J., & Nuñez, A. M. (2000). *Mapping the road to college first-generation students' math track, planning strategies, and context of support* (p. 86). Washington, D.C.: U.S. Department of Education.
Kurlaender, M. (2006). Choosing community college: Factors affecting Latino college choice. *New Directions for Community Colleges*, (133), 7–16.
Malagon, M., & Alvarez, C. (2010). Scholarship girls aren't the only Chicanas who go to college: Former Chicana continuation high school students disrupting the educational achievement binary. *Harvard Educational Review*, *80*(2), 149–173.
Oakes, J. (1985). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.
Pajares, F., & Miller, M. D. (1994). Role of self-efficacy and self-concept beliefs in mathematical problem solving: A path analysis. *Journal of Educational Psychology*, *86*(2), 193–203.
Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *Journal of Higher Education*, *71*(2), 117–141.

Perna, L. W., & Titus, M. A. (2004). Understanding differences in the choice of college attended: The role of state public policies. *The Review of Higher Education*, *27*(4), 501–525.

Riegle-Crumb, C. (2010). More girls go to college: Exploring the social and academic factors behind the female postsecondary advantage among Hispanic and White students. *Research in Higher Education*, *51*(6), 573–593.

Riegle-Crumb, C., King, B., Grodsky, E., & Muller, C. (2012). The more things change, the more they stay the same? Prior achievement fails to explain gender inequality in entry into STEM college majors over time. *American Educational Research Journal*, *49*(6), 1048–1073.

Solorzano, D. G., Ledesma, M. C., Perez, J., Burciaga, M. R., & Ornelas, A. (2003). *Latina equity in education: Gaining access to academic enrichment programs*. Los Angeles, CA.

Zarate, M. E., & Gallimore, R. (2005). Gender differences in factors leading to college enrollment: A longitudinal analysis of Latina and Latino students. *Harvard Educational Review*, *75*(4), 383–408.

Zeldin, A. L., & Pajares, F. (2000). Against the odds: Self-efficacy beliefs of women in mathematical, scientific, and technological careers. *American Educational Research Journal*, *37*(1), 215–246.

FINDING TRACTION FOR SOCIAL JUSTICE PRACTICES THROUGH THE STUDENT TEACHING SOCIALIZATION TRANSITION

Jennifer D. Morrison
University of Nevada, Reno

ABSTRACT

A key issue continuing to plague current educational systems is the intransigent racial and socio-economic achievement gaps for students. Using narrative inquiry and Harré and van Langenhove's (1999) six modes of positioning theory, this study considered preservice teachers' construction of socially just pedagogy within their public school internship contexts. This conceptual lens revealed student teachers are positioned as learners, which gives them a degree of failure resistance (Dweck & Molden, 2005). However, it also puts them in a subverted position where they are susceptible to socialization processes. Transference of social justice and critical pedagogy learning was not always possible because of participants' moral positioning as guests within their internships and pressures, both real and perceived, to conform to micro, meso, and macro structures. A recommendation is to engage preservice teachers in *iterant positioning* (Morrison, 2013) so they are better able to internalize and utilize socially just pedagogy in their own classrooms.

Introduction

The university to career transition can be difficult to navigate for a preservice teacher. It is full of doubt, confusion, change, and risk, and yet this experience is crucial for building the pedagogical, professional, and personal identities of novice educators. How preservice teachers emerge from internships can shape their attitudes and beliefs about students, instruction, and educational systems and even impact their decisions to remain in the field (e.g. Allen, 2009; Brown, 2009; de Jong, Cullity, Sharp, Spiers & Wren, 2010). This is particularly important when considering preservice teachers in urban areas who may encounter students who are racially, ethnically, socio-economically, or linguistically different from themselves.

Academic achievement gaps based on race and socio-economic status continue to dominate most analyses of public school success despite federal and state efforts to ameliorate inequitable educational opportunities. Social programs and increased accountability measures have attempted to close these gaps, but the racial and economic differences in student performance have remained intransigent for the past forty years (National Center for Educational Statistics, 2005). A common recommendation for educational reform to close these gaps has been to train preservice and veteran teachers in social justice and equitable practices (e.g., Ford & Grantham, 2003; Garcia & Guerra, 2004; Jones & Enriquez, 2009).

However, research does not often account for the possibility of this training bumping against other agendas, where high-stakes job survival and testing accountability are in conflict with the enactment of these social justice or anti-deficit plotlines. New teachers in particular are susceptible to the pressures of high accountability testing and federal mandates for proficiency levels and may, therefore, opt to stick to prescriptive curricula and test preparation programs rather than take risks to implement critical pedagogy training they may have received in

preservice coursework (Cochran-Smith & Fries, 2005). The teacher as an individual or representative of the educational system cannot be considered in a vacuum exclusive of a broader context.

My study examined how preservice teachers construct socially just education within their personal, social, and institutional contexts. Examining the barriers new teachers experience may help provide teacher education that better prepares novice educators to navigate society's changing demands and serve traditionally marginalized students, thereby closing achievement gaps This article begins by explaining the conceptual framework and methods of my examination, including participant selection. After I present the study's results, particularly focusing on the case study cross-analysis, I discuss implications and future recommendations.

Conceptual Framework

This study builds on research that considers teacher preparation, particularly the theory-to-practice bridge that occurs as preservice teachers transition into full time classrooms. This bridge is critically important because if preservice teachers acquire strong content and pedagogical knowledge, they feel more prepared and confident (Brown, 2009). They are also less likely to abandon their pedagogical training or "succumb to traditional socialization processes" (Allen, 2009, p. 653) if their ability to serve as change agents is supported within their university and school environments. Therefore, understanding the nature of transference—the degree to which knowledge and skills are carried from the university to classroom settings—can help with providing more powerful opportunities for preservice teachers to implement university learning within their classrooms.

Positioning Theory

Positioning theory, as defined by Harré and van Langenhove (1999), provides a socio-cultural framework to understand how the personal self is manifested in social discourse and recognizes the dynamic nature of positions people take up within a conversation or repeated interactions. It considers interactions between people and accounts for power dynamics. This is important to consider with preservice and new teachers because they are often placed in the middle of existing circumstances with the ability to wield little or no power (Margolis, 2006). With the advent of high stakes assessments and other forms of accountability, teachers and administrators are less willing to turn over their classrooms or incorporate interns' learning for fear of political and fiscal ramifications of top-down mandates (Margolis, 2006). Using positioning theory helps elucidate this multi-leveled power dynamic and its impact on preservice teacher transitions.

For this study, I specifically used Harré and van Langenhove's (1999) six modes of positioning to examine the shifting positions participants took in relation to their story, their environment, and themselves. These six modes of positioning are:

- *first order positioning* - ways that people position themselves in their ongoing storyline
- *second order positioning* - ways the ongoing storyline can be explicitly challenged
- *moral positioning* - the characteristic roles that people assume within storylines based on accepted duties and actions associated with the roles
- *personal positioning* - when characteristic roles are not adhered to in interactions
- *tacit positioning* - unconscious and unintentional positioning

- *intentional positioning* - intentionally striving to position oneself or others

  Please note that while all six modes were considered in the analysis, the first three will be primarily used in this article's discussion because they were dominant in the data collected.

Narrative Methodology

This study employed a narrative inquiry methodology informed by Clandinin and Connelly's (2000) framework. This allowed participants to construct their own lived experiences as they were situated "in the midst" (Clandinin & Connelly, 2000, p. 63) of multiple intersecting plotlines and positioned by multiple groups and institutions. I chose to focus on only a few candidates to uncover deep, rich, complex, multilayered experiences over an extended period of time to move away from a generalized grand narrative to specific, uniquely-developed "small stories" (Bamberg, 2006) that provide real time construction of each participants' day-to-day teaching transition plotline. Changing public and cultural narratives that support teacher agency, professionalism, and social justice pedagogy require understanding and valuing the individual narratives and small stories of beginning educators as they undergo this crucial transition into the public school world.

Methods

This article reflects three participants' initial transitions through their student teaching internships and represents part of a longitudinal four-year study that will continue to follow these individuals as they enter early career teaching. This structure was used to focus on the durability and sustainability of social justice and critical pedagogy university training within lived experiences and teaching contexts.

Participants

The participants for this study were three students from a western United States university enrolled in the College of Education teacher training program. All participants received dual certification in elementary education, K-6, and special education, K-12, and all completed two ten-week internships to fulfill these dual licensure requirements. In order to participate in this study, candidates must have taken two different classes I taught, through which I provided instruction on equitable practices and socially just pedagogy to support educational needs of traditionally marginalized students. I also observed and coached their implementation of this pedagogy through an accompanying practicum experience. We had worked together for two years by the time the study began, and I had already observed their growth as potential teachers from pre-program college entrance. This close interaction helped build a trusting relationship where participants were more open about sharing their experiences from the study's onset.

Data Sources

From November, 2012, to March, 2013, I conducted monthly videotaped and audiotaped interviews with participants using Skype and Amolto recording software. Although I began with specific questions for the participants, the interviews became more participant-driven as the months progressed and they had issues or situations they wanted to discuss. While interviews ran

approximately one hour each, these times varied depending upon the participant, the participant's frame of mind at the time of the interview, the time of day the interview took place, the interview content, or changes and events that had occurred since our last contact. I encouraged participants to bring artifacts to the interviews as stimuli to begin narrating their plotlines as they experienced their transitions. Specific interview information is provided in Figure 1, and sample interview questions are provided in Figure 2.

Drawing on Prosser's (2011) concept of visual methodology, I also asked participants in their first interviews to illustrate how they perceived their positioning within educational contexts such as their university, school, and district; pressures they felt; or how they straddled both academic and professional worlds. They emailed the illustration to me before our interviews and then used the drawings to construct their narratives as we talked on Skype. This helped them to consider what they wanted to discuss in our interviews and provided a non-linear, non-verbal way for them to capture their experiences. I then asked the participants to illustrate their positioning a second time after they had been student teaching, and a third time at the end of their internships. Each of these drawings provided discussion points for the participants' interviews, and they were able to compare the drawings to further discuss their transitional journeys.

Lastly, I used participants' reflection journals, which they emailed or postal mailed to me regularly, and my own analytic memos, which I recorded at the end of each session, to provide a broader understanding of the participants' narrative constructions.

Data Analysis Procedures

I considered each participant as a separate case study because I wanted to "close in" on their lived experiences (Flyvbjerg, 2011). Riessman's (2008) conceptions of narrative thematic analysis informed how I analyzed each individual's interview transcript and journal reflection. I engaged in careful textual analysis of each thought segment (topic on which the participant was speaking), highlighting key ideas, noting main points, and charting the different forms of positioning that emerged within the discussions. I then mapped out emerging themes for each interview and highlighted sections of the interview that illustrated these themes. The larger themes that emerged were personal background, university training and experiences, teaching experiences and beliefs, tensions (interpersonal, intrapersonal, institutional), and positioning (six modes). I constructed individual participants' narratives to reflect the philosophies from which each was operating and making decisions since their backgrounds can affect how they position themselves and others in interactions (Jones & Enriquez, 2009). In order to ensure I had written individual narratives that resonated and appropriately reflected participants' experiences, I engaged in member-checking; all the participants approved of their respective narratives without issue.

Because I was interested in the phenomenon of university students transitioning into and through their student teaching experiences, I then conducted a multiple case study (Stake, 2006) to see how the themes that emerged in the individual case studies interconnected or differed across the quintain, defined by Stake (2006) as "the phenomenon or condition to be studied" (p. 6). In this case, the quintain was transitioning to student teaching. The resultant synthesis of emerging themes and positioning theory analysis are summarized in Figure 3.

Results and Analysis

Individual narratives revealed how each participant came to education, how s/he perceived his/her situatedness within transitional spaces, core beliefs, and how those core beliefs were enacted or challenged within the lived experience. For example, Bryan[1] saw his transition as emotionally linear, moving from being "happy and humble" to "excited and anxious," and he relied on philosophies of caring, strong rapport, and creative, "fun" instruction in his decision-making processes (Bryan, December 18, 2012). While this approach often served him well, he also encountered difficulties with tight, prescriptive curricula, low-level reading materials, and a lead teacher who had different dispositions about teaching diverse students. Another participant, Adele, considered herself positioned between two spaces competing for her time, energy, and resources—being a university student and being an intern. Her proactive manner and need to plan and organize demonstrated themselves in her desire for excellent classroom management and routines, while her social and cultural capital, gained from her parents' educational backgrounds, gave her a critical view of her experiences. Her biggest tensions arose from a redundant, unimaginative curriculum and a contentious first grade team, where she felt forced to "take sides" between teachers (Adele, January 21, 2013). Maxwell underwent two key transitions within six months—into his internship and then becoming a full time special education teacher mid-year. His Line Six philosophy—which encompassed teamwork, accountability, and responsibility—permeated every aspect of his transitions and impacted his interactions with both individuals and institutions. It served as a powerful means for him to effectively position himself to handle disruptive students, irate parents, dominating co-teachers, and a test-obsessed school culture. He found his biggest conflicts were when other people rejected being "on his team" (Maxwell, November 27, 2012). The cross-case analysis findings were divided into two key storylines that unfolded during the participants' transitions: 1) stops and starts; and 2) tensions and conflicts.

Thematic Strand #1 - Stops and Starts

The first storyline addressed stops and starts that were often the result of participants' attempts to manage dual positions as student teachers/learners and teachers in full control of a classroom. They tended to engage in *first order positioning* as learners. For example, Bryan described the events of one first-grade lesson:

> I used pictures of hamburgers and an alligator to hook students. This worked well, and I built the anticipation by having two student volunteers come up to the front to hold the mysterious pictures (hamburgers). All of the students were engaged and wanted to know what the pictures were of. I used this excitement to teach the concept of greater than and less than. I anticipated that because the lesson was at the end of the day, students would be loud and excited. This was an understatement. It turned out that the opening portion of the lesson worked well, but after the hook, I spent time redirecting misbehavior and gaining student attention. I tried switching gears and using the active board to get some student interaction. This worked briefly, and students seemed to focus when they knew they might get the opportunity to come up to the board and answer a question. From this

[1] All names are participant-chosen pseudonyms.

> point, the lesson kind of headed south. I did not get a chance to have a nice closure and review main points from the lesson….On the bright side, I gave my assessment and only a few students did not answer all questions correctly. This made me feel good because although behavior was a problem, learning still took place. In retrospect, I was proud of myself for staying calm and using many management techniques to control behavior. There were things I could have done better, such as explicit directions before handing out a worksheet. However, as a whole I felt like the lesson was a good first observation, and I know with more experience I will improve.
>
> —Week 4 Reflection

Bryan's students challenged his *moral positioning* as teacher, and he had to *intentionally reposition* himself as the authority figure in the classroom by making adjustments to the lesson as it evolved. He also *intentionally positioned* himself as a learner—"there were things I could have done better"—and recognized growth is part of the process. Because of this, he was able to identify what he did well—"staying calm and using many management techniques"—and build on those successes instead of focusing on his mistakes. Bryan took up a dual position of being both a teacher and a learner. He recognized student teaching is a learning process where mistakes will occur, and because of this, he developed what Dweck and Molden (2005) refer to as "failure resilience" because he attributed his mistakes to a learning process, not a reflection of his talent, ability, or character. Even though he encountered stops, he continued to reflect, make repairs, and find a way to get back on the road again.

However, just as he was starting to build momentum and "see a growth in myself; getting comfortable in the situation," he came to another roadblock:

> There's a few girls in whole group discussions—some of the responses I get from two or three of them—I can't see the misconception...I'm trying to make an attempt to really understand. Part of it—no excuses—but they receive enrichment; they're Tier 3 [in the RTI structure]. They're not special ed yet, so in that sense, I do feel a little helpless because I don't even know where to start with those three because it's a culmination of things. Behavior. I'm sort of clueless to what's going on in their minds. I mean, not to sound rude, but they'll be sitting there watching me. I'll ask a question, and kids will be responding; we'll be writing stuff on the board. I can tell they're engaged, and I'll ask one a similar question, and I will get an answer completely—the last time I was being observed, the response I got from one of these students, I didn't even know what to say. I couldn't clarify her answer. I just kind of froze for a second, and I was like, "Can you explain a little more?" Then she was trying to explain, and she's also an EL so her accent is kind of hard to understand when she talks...But, I couldn't understand the thinking. I'm trying to see where she's coming from. So, that's one thing I'm still trying to figure out. (February 24, 2013).

In this circumstance, Bryan feels powerless. Positioned as a teacher, he is responsible for student learning and expected to know what to do, but as a *student* teacher, he has not gained the skill set and experience to address the situation. Yet another example of stops and starts occurred when Adele gave a math assessment that students did not do well on. She had to reflect on her own performance and make a decision based on that reflection.

> "I did a math activity that just bombed, and I showed [my lead teacher] the papers, and I

> said, 'These are awful. They didn't learn anything, and I didn't teach it right. Can I throw these away?' And she said, 'Yeah, sometimes things don't work, and you know what? Just let it go. They're going to get more practice with it in the final lesson and it carries over into the next unit" (January 21, 2013).

Because Adele took up a *first order position* as learner, she was able to realize her execution of the lesson was flawed, and as a result, her students did not learn the concept. Rather than blame students, she took responsibility, and, with the help of her lead teacher, redesigned and retaught the lesson so students could better understand it.

Because Bryan, Adele, and Maxwell were willing to accept their *moral positioning* as *student* teachers with a great deal to learn, they were able to ask for, receive, and effectively use support and guidance from the people overseeing them. For example, Maxwell explained:

> My lead teacher was always there for support, which was nice because if I had a question I could go to her. For instance, if we were running behind in reading that afternoon, what should we do? I would ask her because I know that she wants to be at guided reading and STEM questions by 2PM every day. Should we continue reading with the students, or should we stop where we are and break out into small guided reading groups? One of the most important things that I learned from my lead teacher during my internship in 5th grade was that teachers are not perfect, and we do make mistakes. Before my internship I had this idea of what a real teacher was like; now I know that real teachers make mistakes. Teachers are human and can forget to do certain things every once in a while. I learned that if we come across mistakes that the best thing to do is to own up to it (Week 10 Reflection).

In this thematic strand, participants initially took up *first order positions* as students learning from their teachers or professors, and those positions were usually *personal* because the participants modeled themselves after the individuals who demonstrated the traits and characteristics they wanted to emulate. However, when they were faced with faculty members who they did not believe modeled effective instructional practices or pedagogy, they engaged in *second order positioning*, rejecting the models and sometimes even the content from these courses. For example, Maxwell stated:

> Engaging the students, questioning each student, building rapport—it seems like you [Jennifer] have really good rapport. It was never bad to come to class in your class. I had a behavior class for special ed just last spring, and it was just like we had two hours and forty-five minutes of PowerPoint. It was just unbelievable—not engaging at all. So, I just learned engaging students, moving. Do not just sit there. Be lively. Don't be boring. No one wants to be the boring teacher. (November 27, 2012).

Thematic Strand #2 - Tensions and Conflicts

The second thematic strand—tensions and conflicts—addressed the negative side of the participants' positioning as learners. They were often confronted with beliefs or situations that did not align with the equitable education theory and best practices they learned in university

classes. For example, Adele became frustrated when two first grade teachers, one of whom was her mentor teacher, were insisting their teaching needed to be the same even though leading and lagging data said the students were performing differently. Her response of "Different students would need different supports, so why, why should it be the same?" (January 21, 2013) indicates she understood the necessity to provide individualized and appropriate instruction for students.

In this case, Adele took a *second order position*, challenging the notion that learning in both classrooms should be identical regardless of student needs. The comparative data made sense from a teacher perspective, but not from an individual student perspective, and this disjointedness caused her uncertainty and ultimately her silence—"I just kept my mouth shut" (January 21, 2013). Because she was positioned by what her lead teacher can say about her in observations and evaluations as well as a desire to impress her, Adele felt she had to take sides. "I am definitely seeing the two different sides because they both made good points, but ultimately, I'm with my lead teacher, so I do what she does" (January 21, 2013). She chooses to accept her subverted *moral position* as simply a learner instead of taking up a *second order position* as an educated colleague and challenging the perceived issue.

While the participants recognized the need to implement more individualized and differentiated instruction, they often refrained from enacting these practices within their mentor teachers' classrooms. There were times when participants saw something in a classroom that countered what they were taught at the university, and they had to reconcile this information. One example is when Bryan met with his lead teacher for the first time, and she explained to him how she grouped students:

> She has thirty-four kids in there so she has six groups, and they're all grouped by ability. She said, "You know, people talk about grouping students by ability or tracking them. If they're a low group, they're always going to be low." But she was like, "This is the way I differentiate. I group them by ability." She's like, "By no means am I saying I want them to stay low, but they're getting the support they need because I know where they're at and then when we work in small groups, I can work with five at the same time." (December 18, 2012).

Bryan was conflicted about this because his university training had explicitly taught him grouping by ability could be harmful to students, particularly those who are traditionally marginalized or struggling, and flexible grouping by modality, interest, and readiness levels is a better practice (Morrison lesson plans, EDUC 211, Spring 2010). He suggested to me a way he would enact the instruction occurring in the classroom, though he did not bring this up to his lead teacher:

> I would maybe try something different…The data is showing that they [the students] need work on phonics, and they need work with breaking up words and putting [them] together…I would reteach it. I guess, yeah, I'd do maybe something with small groups. That seems to work. [My lead teacher] is doing the phonics and word segmentation as whole group, so maybe that's not meeting their individual needs. Maybe because they have the whole—the way it's set up, like whole group reading where she goes through new words for the week. Maybe that's not—maybe the kids are losing it in the whole group. Maybe they're just zoning out, I think. And we're not picking up on the fact that

> they're really not there. Even though they seem like they're paying attention, the scores are showing they're not. So scratch whole group and get them through rotation. I think that'd be the only way to me, just for the sheer size of the class, 32 kids, and there's three of us in there. That'll definitely, I think, help. (January 21, 2013).

In this situation, Bryan believed in implementing flexible grouping practices, however because he was positioned subversively as a student teacher working within the confines of the lead teacher's beliefs and routines, he faced tensions between what he wanted to do and what he was able to do. He wanted to take up an *intentional position* as teacher with differentiated grouping practices but was not empowered by his role and circumstances to do so and subsequently yielded to the teacher's milieu, accepting his subverted moral position as learner.

Another example was when Bryan was conflicted about the texts used for Lead 21, the first grade, programmed curriculum. He felt:

> "You can't get much from the book because it's so low, even the highest group. The books are maybe 150 words, so there's only so much you can talk about…The books themselves just don't have that much. There's not a whole lot to a basic reader…It's pretty simple answers, but it's alright though" (January 21, 2013).

Bryan spent several minutes elaborating on the lack of critical thinking opportunities available in the books he was required to use. While this was obviously bothering him, he dismissed the problem with "it's alright, though."

This final comment seems to indicate a resignation and acceptance of the curriculum's limitations. This becomes of particular concern because it is in conflict with the university training Bryan internalized and wants to implement. He made reference to wanting to include engaging and "fun" ways to teach—guided reading, read alouds, group discussions—but the reading program's time constraints and rigid construction did not allow him the opportunity to elevate the level of instruction. Because his lead teacher used the Lead 21 curriculum, Bryan used it. When I asked him about this, he responded, "It just feels like there's not a whole lot of breathing room to say, 'Hey, let's mix it up.' So, I'm just going with [my lead teacher's] flow. I guess I don't really have an answer" (January 21, 2013).

It is apparent Bryan has an understanding of the students, the dynamics of the class, and ideas of how to better implement the curriculum. He also has the desire to implement more engaging, higher order thinking within the class context. Instead, because he is *morally positioned* as "learner" and "student teacher" and, therefore, lacks the power to make such changes, he remains quiet and "goes with the flow" of his lead teacher's classroom. He subordinates himself to the processes occurring within the classroom and defers to his lead teacher in most circumstances. This does not mean he disrespected or disliked his lead teacher; in fact the opposite was true—"She and I are very similar," "She's very good" (January 21, 2013). It does suggest, though, that he was undergoing a level of socialization in order to "survive" this learning experience.

It was apparent that like Bryan, Adele had ideas about how teaching could be done differently based on university training and philosophical stances. Rather than teach the Lead 21 curriculum as it was established in the book, Adele saw herself doing something different:

> Mine would be to do some of these projects where it says, 'Have students create a poster,'

> even as a group. Give them a big piece of paper and have each group…create a poster advertising, telling the world how they can protect the earth. They may not be that creative yet, but they could just make a poster with words…I think I would do that to get them to understand how we use and protect earth's treasures. Or go outside and look around. Do we see trash? Is that protecting the earth? Get involved with the theme more. Interact with it more such that…we're not just doing phoneme blending. (January 21, 2013).

While not willing to challenge her *moral position* as student teacher and speak up to her lead teacher, Adele was processing her actions and wanting to break from the conforming curriculum her lead teacher feels bound to follow.

The question then becomes, will both Bryan and Adele be able to retain their training in critical thinking, engaging instruction, and equitable practices—including flexible grouping, differentiation, and problem-based learning—through the student teaching process to implement within their own classrooms, or will the institutional pressures of canned curricula and standardized testing socialize these conceptions out of them? The other question to consider is that by Bryan and Adele's keeping their ideas to themselves in a desire to "not make waves" (Bryan interview, January 21, 2013), is their positioning denying their lead teachers an opportunity to rethink practices, learn new techniques, or find ways to help them more? By not questioning their *moral positions* as learners, do they deny their lead teachers the opportunity to position *themselves* as "learner" and "co-constructors" of curriculum development?

In this thematic strand, participants encountered more conflicts between their moral positions as subverted student teachers and learners and their desired positions as teachers enacting differentiated, engaging, flexible, and critical teaching. They brought with them significant teaching capital—strong core beliefs, student-centered instructional strategies, and implicit knowledge gained through their own observations and classroom experiences (Tomlinson, 1999). However, they often reverted to compliant positions, demonstrating potential socialization in an attempt to make sense of their physical and social environments (Allen, 2009) or survive the multifaceted pressures of the profession (Loughran, Brown & Doecke, 2001).

There were times, though, when they took up *first order positioning* in a more intentional manner than with the stops and starts storyline. In these circumstances, they deliberately and consciously "kept their mouths shut," "did not peep," or "did not cause waves" because they realized they personally had considerable risks at stake in terms of evaluations, rapport, and job opportunities if they spoke out against professionals or established organizational structures, such as curriculum and testing processes, within their schools. They were in the midst of their respective narrative landscapes' plotlines and often disempowered by program policy, hierarchical structures, and relegation to subverted roles.

But they also did not speak up much on their behalf. Perhaps this was because of fear of repercussions including not gaining a job; perhaps it was because socialization processes were occurring and they passively accepted their moral position in an attempt to survive the experience; or perhaps it was because the systems they entered assumed they were "blank" slates. The participants' vacillating and shifting positions demonstrate their attempts to reconcile the plotlines in which they find themselves with the storylines they have lived and those they desire to see in the future. As Maxwell quipped: "I want to finish strong because I definitely want a job here" (December 11, 2012).

Implications

Pedagogical Implications - Apprenticeship of Observation & Socialization

One of the key pedagogical implications of this study is teacher educators must realize preservice teachers model their pedagogical and professional behaviors after them. If we do not appreciate this reality, we are operating in and providing an impoverished pedagogy. All three participants clearly cited examples of teachers and professors who had made a profound impact on their teaching dispositions, both positively and negatively. For instance, Bryan stated: "I consider the teachers in the classes that I just do not look forward to for various reasons. I don't necessarily want to teach how I was taught, particularly in some classes" (November 7, 2012). Lortie's (1975) apprenticeship of observation model has been used to suggest good (and bad) teaching is implicitly transmitted to students who have had positive (or negative) experiences as learners, and subsequently shapes their future teaching practices (Mewborn & Tyminski, 2006). This was not just pertinent to the participants' K-12 experiences; they also drew heavily on the modeling, or lack thereof, they received from professors at the university level.

Teacher education programs are not just about the courses students take; they are also about how the courses are implemented and executed. It is not enough to talk about critical theories or teaching for diversity in an attempt to eliminate racial or socio-economic achievement gaps; teacher educators must demonstrate *how* to implement these concepts and how to navigate internal and external structures that exist within educational contexts. Margolis (2006) contends preservice teachers are less likely to "embody a transformative stance toward teaching" (p. 40) within their internships or even their own classrooms if they have not experienced one themselves. University classes are the most recent "apprenticeship" for aspiring teachers and carry significant sway in influencing preservice teachers' development.

Additional pedagogical implications of the study address the tension between the desire to implement equitable education and the socialization and survival processes experienced by preservice teachers. Student teachers taking up first order, moral positions, which tend to be subverted, gives them little voice in curricular, instructional, or pedagogical decision-making within their own preparation program or within their internship classrooms. This situation is aggravated by the fact that student teachers are often dropped in the midst of existing classroom and institutional plotlines. Therefore, they are *tacitly* and *morally* positioned in a dependent way, relying heavily on their mentor teachers to help them make sense of the complex context in which they are temporarily placed. Because of this dependency, they are fearful to speak up, speak out, or take up a more intentional position of challenge (Liggett, 2011; Margolis, 2006). They experience transition shock as they attempt to apply university learning in a multitude of ways simultaneously. This leaves them vulnerable to socialization processes that can make enactment of social justice and critical pedagogy difficult, especially when these concepts are in conflict with established routines, standards, and curriculum.

Theoretical Implications - Iterant Positioning

The key theoretical implication of this study involves *iterant positioning* (Morrison, 2013), which I am defining here as the process of *intentionally* positioning and repositioning individuals within similar and recursive contexts to practice and develop conceptual or skill construction. According to Ladson-Billings and Tate (1995) and Tatum (2003), awareness of

societal inequities is only one of the two prongs necessary to generate true socially just pedagogy. The second prong is action. If teacher educators are to prepare preservice teachers to be transformative in order to close learning and achievement gaps, and if critical theory asks us to not only provide awareness but also opportunity for enactment, we must consider how preservice teachers need to be positioned within their university programs and their transitional stages to be empowered to implement critical pedagogy within their classrooms.

It is not enough for us to merely talk about what to do; preservice teachers need to be *intentionally positioned* to practice equitable educational practices in authentic ways for these conceptions to develop greater traction within new teachers' schemas and deeper internalization within their philosophies. If greater traction can be achieved, preservice teachers may be able to take up more intentional positions as implementers of equitable practices, and through second order positioning, challenge the status quo they may be confronted with. De Jong et. al. (2010) suggest transference is based on a constructivist process which is "actor-oriented" (p. 51) and dependent upon the degree to which an individual is able to accommodate new knowledge and skills within his/her existing repertoire. This means preservice teachers need to know and practice *how* to implement equitable practices and embed social justice conceptions into existing contexts. They need to be deliberatively positioned to experience transformative education, perhaps almost to the point of habit, for real social change to occur. If preservice teachers are able to engage in iterant positioning, these paradigms are more likely to become part of the fabric of their thinking when they leave the university

While they do not enter their teaching programs and internships as empty vessels, preservice teachers are still learners who are developing skills, beliefs, and ideas. Just as younger students benefit from a spiral curriculum that introduces conceptions in a recursive manner, increasing complexity and abstraction with each new engagement (Bruner, 1960), so too can preservice teachers. Bruner (1960) suggests: "A curriculum as it develops should revisit the basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them" (p.13). This conception is not limited to elementary or secondary learners. Curricula of critical and democratic pedagogy, anti-deficit thinking, and social justice are complex, multifaceted, dynamic, and cannot be internalized within a single course or internship. It is therefore necessary for teacher education programs to consider ways preservice teachers can be iterantly positioned to observe, experience, and practice such curriculum in multiple ways. It may also be necessary to provide preservice teachers guidance in how to navigate their specific circumstances where reinforcement of the status quo, including practices that reify achievement gaps, may be the school or district culture.

Future Research and Closure

As this longitudinal study unfolds, I will continue to look at how preservice teachers learn to become teachers. What do preservice teachers implicitly learn through their apprenticeship of observation (Lortie, 1975) and explicitly gain through their university training regarding equitable education? To what degree can professors utilize the apprenticeship conception to instill educational beliefs, processes, and best practices such as differentiation, flexible grouping, and engaging literacy skills that reflect and reinforce what we know is necessary to achieve equitable education and possible eliminate achievement gaps? What part of this learning do preservice teachers carry with them into their internships and professional teaching, and what portion do they hold on to for an extended period of time? What factors

hinder their ability to implement the best practices and philosophical core beliefs (anti-deficit thinking) that can reduce or eliminate student achievement gaps? These are all lenses I would like to consider as this study continues.

It is imperative we do not just teach preservice teachers to engage in critical, equitable, and democratic practices; we must ensure they are able to carry this teaching through their intern experiences and into the classroom. These practices should deepen and become enriched through implementation and experience, not dampened and eroded by socialization and survival. Deep conceptual knowledge requires embodied, authentic experiences. After all, if we want to address inequities with students, we must address how our newest and most vulnerable teachers are tacitly and intentionally positioned to work with them.

References

Allen, J. M. (2009). Valuing practice over theory: How beginning teachers re-orient their practice in the transition from the university to the workplace. *Teaching and Teacher Education, 25*(5), 647-654.

Bamberg, M. (2006). Stories: Big or small: Why do we care? *Narrative Inquiry, 16*(1), 139-147.

Brown, A. (2009). *Teacher interns, metacognition and identity formation*. Paper presented at the 'Teacher education crossing borders: Cultures, contexts, communities and curriculum' the annual conference of the Australian Teacher Education Association (ATEA), Albury.

Bruner, J. (1960). *The Process of Education*. Cambridge, MA: Harvard University Press.

Clandinin, D. J., & Connelly, F. M. (2000). *Narrative Inquiry: Experience and Story in Qualitative Research*. San Francisco, CA: Jossey-Bass.

Cochran-Smith, M., & Fries, K. (2005). The AERA panel on research and teacher education: Context and goals. In M. Cochran-Smith & K. M. Zeichner (Eds.), *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (pp. 37-68). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

de Jong, T., Cullity, M., Sharp, S., Spiers, S., & Wren, J. (2010). Proposed priniciples for promoting pre-service teacher transfer of group-based learning to the classroom: A discussion paper. *Australian Journal of Teacher Education, 35*(3), 49-58.

Dweck, C. S., & Molden, D. C. (2005). Self-theories: Their impact on competence motivation and acquisition. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of Competence and Motivation* (pp. 122-140). New York, NY: The Guilford Press.

Flyvbjerg, B. (2011). Case study. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (pp. 301-316). Thousand Oaks, CA: Sage Publications.

Ford, D. Y., & Grantham, T., C. (2003). Providing access for culturally diverse gifted students: From deficit to dynamic thinking. *Theory into Practice, 42*(3), 217-225.

Garcia, S. B., & Guerra, P. L. (2004). Deconstructing deficit thinking: Working with educators to create more equitable learning environments. *Education and Urban Society, 36*(2), 150-168.

Harre, R., & van Langenhove, L. (1999). The dynamics of social episodes. In R. Harre & L. van Langenhove (Eds.), *Positioning Theory* (pp. 1-13). Malden, MA: Blackwell Publishers Ltd.

Jones, S., & Enriquez, G. (2009). Engaging the intellectual and the moral in critical literacy education: The four-year journeys of two teachers from teacher education to classroom practice. *Reading Research Quarterly, 44*(2), 145-168.

Ladson-Billings, G., & Tate, W. F., IV. (1995). Toward a critical race theory of education. *Teachers College Record, 97*(1), 47-68.

Liggett, T. (2011). Critical multicultural education and teacher sense of agency. *Teaching Education, 22*(2), 185-197.

Lortie, D. (1975). *Schoolteacher: A Sociological Study*. London: University of Chicago Press.

Loughran, J., Brown, J., & Doecke, B. (2001). Continuities and discontinuities: The transition from pre-service to first-year teaching. *Teachers and Teaching: Theory and Practice, 7*(1), 7-23.

Margolis, J. (2006). New teachers, high-stakes diversity, and the performance-based conundrum. *The Urban Review, 38*(1), 27-44.

Mewborn, D. S., & Tyminski, A. M. (2006). Lortie's apprenticeship of observation revisited. *For the Learning of Mathematics, 26*(3), 30-32.

Morrison, J. D. (2013). *Hearing voices: Using narrative inquiry to examine how preservice teachers experience transition from university student to student teacher.* (PhD Dissertation), University of Nevada, Reno, University of Nevada, Reno.

National Center for Educational Statistics (2005). Downloaded from www.nces.gov. March, 2013.

Prosser, J. (2011). Visual methodology: Toward a more seeing research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (4 ed., pp. 479-496). Thousand Oaks, CA: Sage Publishers.

Riessman, C. K. (2008). *Narrative Methods for the Human Sciences*. Thousand Oaks, CA: Sage Publications, Inc.

Stake, R. E. (2006). *Multiple Case Study Analysis*. New York, NY: Guilford Press.

Tatum, B. D. (2003). *"Why are all the black kids sitting together in the cafeteria?": A psychologist explains the development of racial identity*. New York, NY: Basic Books.

Tomlinson, P. (1999). Conscious reflection and implicit learning in teacher preparation. Part II: Implications for a balanced approach. *Oxford Review of Education, 25*(4), 533-544.

BRIDGING THE THEORY-PRACTICE GAP IN AN URBAN TEACHER RESIDENCY: TWO INTERVENTIONS AND A CAUTIONARY NOTE

Wendy Gardiner
National Louis University

Diane Salmon
National Louis University

ABSTRACT

In 2001, National Louis University and the Academy for Urban School Leadership partnered to create the country's first Urban Teacher Residency (UTR) program. Ten years later, with the assistance of Teacher Quality Partnership funding, the program quadrupled in size. As the UTR expanded, an increasing theory-practice gap became apparent, reflecting a perennial problem in teacher education (Darling-Hammond, 2006; Zeichner, 2010). A leadership team was formed to address the growing gap and several smaller scale interventions were implemented to no real avail. Subsequently, grant funding was allocated toward two interventions designed to increase university faculty engagement in schools. This paper describes and analyzes those interventions: 1) faculty liaisons as an alternative to traditional supervision, and 2) faculty research residencies to situate university faculty in high need schools for the dual purpose of engaged research and curricular revision. Questions pertaining to post-grant sustainability are also raised.

Introduction

In 2001, National Louis University (NLU) and the Academy for Urban School Leadership (AUSL) partnered to create the country's first urban teacher residency (UTR) program. At its inception, the UTR comprised one culturally and linguistically diverse "training academy," a small pool of university faculty who met on-site at training academies to deliver coursework, and 32 teacher candidates (called "residents"). In 2011, the UTR comprised six elementary and three secondary training academies, university faculty spanning six departments who held classes on campus, and 112 residents. By 2011, university faculty rarely spent time in training academies, where residents spent four days per week.

As our UTR expanded, we observed—and residents' program exit data confirmed—an increasing disconnect between their university coursework and their experiences in their training academies, reflecting a perennial problem in teacher education (Darling-Hammond, 2006; Zeichner, 2010). Additionally, university faculty increasingly reported a lack of knowledge about the teaching practices enacted in the training academies—a frequently occurring problem, even in the context of school-university partnerships (Bullough & Kauchak, 1997; Zeichner, 2010). Problematically, this gap not only inhibits residents' learning but also fails to capitalize on the field-intensive program.

The purpose of this study is to describe and analyze the impact of two separate interventions involving university faculty teaching in the UTR program. These interventions were designed to bridge the theory-practice gap and inform other developing or expanding UTRs. The interventions include: 1) faculty liaisons as an alternative to traditional supervision, and 2) faculty research residencies to situate university faculty in high need schools for the dual purpose of engaged research and curricular revision. The following research question guided the analysis of this study: In what ways, if any, does faculty participation in the liaison or research

residency role impact faculty members' understanding of and ability to increase school-university coherence?

Urban Teacher Residencies

Urban Teacher Residencies (UTRs) are a relatively recent teacher preparation innovation designed to improve teaching and learning in high needs schools. UTRs involve collaboration between school districts, universities, and non-profit organizations (Berry et al., 2008). UTRs recruit socially motivated candidates who want to teach in urban schools; these programs integrate theory and practice through a one-year "residency" with mentor teachers at "training academies" while residents take graduate level coursework leading to a master's degree and certification. UTRs also help graduates secure teaching positions in the partnering district's high need schools and provide induction support to program graduates (Berry et al., 2008).

This comprehensive approach is intended to address issues pertaining to urban teacher preparation, and teacher attrition and its impact on students' experiences (Berry et al., 2008; Solomon, 2009). Research indicates that UTRs demonstrate higher levels of new teacher retention in hard to staff schools (Berry et al., 2008) and show promise as a reform intervention (Berry et al., 2008; Gardiner & Kamm, 2010; Gatlin, 2009). However, reflecting research on Professional Development Schools indicating uneven implementation and uneven results (Teitel, 1999), careful attention to the design and implementation of UTRs is critical if they are to be a viable reform intervention.

Conceptual Framework

Proponents of field-intensive learning, such as UTRs, explicate the necessity of establishing stronger connections between theory and practice (Darling-Hammond, 2010; Hammerness et al, 2005; Wang et al., 2010) and recommend a more situated approach to teacher learning in which university course content is specifically linked to and embedded in the actual tasks and activities of teaching (Ball & Forzani, 2010; Lampert, 2010). Such an approach calls for a fundamental reconceptualization in how schools and universities collaborate (Darling-Hammond, 2010) and how teacher education coursework is designed and delivered (Ball & Forzani, 2010; Lampert, 2010).

In his critique of the disconnect between campus-based and school-based components of teacher education, Zeichner (2010) states that new roles and relationships need to be established in order connect course and field experiences and improve teacher candidate learning. In accordance with this stance, Ball and Forzani (2010) state that an essential task of teaching is determining where learners encounter difficulties. In the context of teacher education, situating university faculty in the classrooms where teacher candidates are learning to teach can provide clarity about what practices are implemented, how they are implemented, and where teacher candidates succeed and struggle. Optimally, such insights can be applied to establish a stronger connection between theory and practice, and more supported learning experiences.

Yet, despite the press for greater full time faculty involvement in field-based components of teacher education to help bridge the pervasive theory-practice gap, research indicates fulltime university faculty maintain low involvement in school-based teacher education (Beck & Kosnik, 2002; Darling-Hammond, 2010; Zeichner, 2010). A number of factors serve to inhibit faculty's willingness and ability to invest in field-based teacher education, including the fact that field-

based work is perceived as low status (Beck & Kosnik, 2002; Cucena et al., 2011; Darling-Hammond et al., 2005) and the reality that university structures typically privilege publications and tend to support faculty involvement in the field when this activity focuses on scholarship (Darling-Hammond, 2010).

Methods

Background & Context

The UTR structure on which we focused for our study was a one-year program entailing a clinical placement (residency) with an experienced mentor teacher in a training academy and university coursework leading to a master's degree and certification. Between June and August residents took intensive summer coursework at the university, Monday through Friday from 9:00 am to 3:30 pm. From late August through June, residents were in classrooms with their mentors, Monday through Thursday, and took coursework at the university on Friday. Upon program completion, the UTR helped residents secure teaching positions in the district's high needs schools.

In 2009, the UTR had been in existence for eight years, quadrupled the number of residents and mentors since its inception, added five new training academies, and retained no original university faculty. Also in 2009, the Teacher Quality Partnership (TQP) grant was awarded and provided funding for the UTR. The authors of this manuscript began attending newly established monthly leadership meetings and also taught courses in the UTR program.

The leadership meetings were established to improve the coherence between the school and university portions and improve resident learning. In this manner, monthly leadership meetings were intended to identify and prioritize needs and problem solve. Participants in the leadership meetings included four university faculty who taught in the program, the NLU-AUSL liaison, the TQP grant manager, and the managing director and director of teacher education for AUSL. Membership remained constant. Once a quarter, the dean or dean's designee attended the leadership meetings. Issues raised and discussed included the sequencing of coursework, structural organization of the UTR model, recruiting university and school-based faculty to teach in the program, ensuring that those who taught in the program understood the field intensive model and the program's curricular design, finding ways to increase coherence between university coursework and field experiences, and improving university supervision, which was reported to be inconsistent in quality.

The leadership team developed and facilitated a range of interventions between 2009-2011. These interventions appeared to add some value but did not fundamentally address the theory-practice divide evidenced in residents' exit data. For example, a two-hour onboarding session for those new to teaching in the UTR was created to provide a program overview. Half-day faculty visits to training academies were established and led by the NLU-AUSL liaison for university faculty. Supervisor sessions were held to bring supervisors, teaching faculty, and mentor-resident coaches (each training academy had an AUSL employed mentor-resident coach to support resident and mentor development) together to develop a shared understanding of the program, residents' supervisory needs, and shared expectations for supporting residents' development. For one year, there were joint AUSL and NLU personnel meetings to develop school-based professional development sessions for mentor teachers. While these steps appeared to contribute to some improved coherence, they were insufficient in leading to substantive

change and difficult to sustain because of the complex logistics they entailed.

Seeking to effect more substantive change to improve the coherence between the school-university experiences, members of the leadership team identified and sought to address two key issues: the quality of supervision and university faculty's disengagement from school settings. To this end, the members organized into small teams to create the faculty liaison model as an alternative to traditional supervision and to create faculty research residencies to engage faculty in school sites for the purpose of conducting research in order to redesign university coursework. The first author was on both teams, and the second author was on the faculty research residency team. Both interventions will be described more fully in the "Results" section. Additionally, both interventions were funded through the Department of Education grants. The Teacher Quality Partnership grant funded the faculty liaison model and the Fund for the Improvement of Post Secondary Education funded the faculty research residency model.

Data Sources and Analysis

Two data sets were gathered, one pertaining to the faculty liaison model (2011-12) and one pertaining to the faculty research residency project (2010-2014). For the faculty liaison model, data included resident (n = 19) and mentor (n = 17) surveys at the end of the program focusing on the benefits, limitations, and impact of the model. Structured interviews (Seidman, 1998) were also conducted with faculty liaisons who were full-time university faculty teaching in the UTR program (n = 4) and mentor-resident coaches (MRC) who worked at training academies to support mentor and resident development (n = 6). Interviews sought to understand the nature of the work, participants' perspectives on the liaison model, and recommendations for sustaining, modifying, or eliminating the model. Surveys and the interview protocol for the faculty liaison study are found in Appendix A.

For the faculty research residencies, data included participating faculty's documents (e.g., revised syllabi, assignments, and other materials demonstrating course changes), structured interviews (Seidman, 2013), and a pre- and post-residency surveys from faculty who engaged in research residencies (n = 13). The interview protocol and the survey for the faculty research residency study are found in Appendix B.

Each data set, liaison model, and faculty research residency model was analyzed separately. Data analysis occurred through comparative analysis (Corbin & Strauss, 2008). Repeatedly reading and discussing data established open codes (Corbin & Strauss, 2008) such as "boundary crossing," "communicate expectations," and "competing pressures" for faculty liaison data, and "new tool," "theory to practice challenges, "understanding impact," and "context insights" for faculty research residency data. Through ongoing comparative analysis, we continued to reread and discuss data, looking for conceptual and experiential similarities and differences, in order to refine, revise, and synthesize codes into interpretive themes (Corbin & Strauss, 2008; Miles & Huberman, 1994) such as "A More Holistic Lens to 'Push Residents' Growth'" and "Understanding Problems of Enactment." Finally, we engaged in comparative analysis across models to garner insights into if and how faculty participation in the two models—liaison or research residency—impacted their understanding of and ability to increase school-university coherence.

Results

Faculty Liaison

The Faculty Liaison (FL) model was informed by Beck and Kosnik's (2002) "professors in the practicum" model. In an effort to better link school and university experiences, Beck and Kosnik implemented an alternative supervision model in which full-time faculty supervised, but did not evaluate, practicum students. In their school-based role, university faculty communicated university expectations, connected coursework and field experiences, and provided instructional feedback. Results indicated that the model strengthened university and school-based personnel's commitment to the partnership and improved teacher candidates' experiences in university coursework and field placements. University faculty noted that the model placed high demands on time and that their academic community did not legitimize their in-school work. Beck and Kosnick contend the benefits outweigh the limitations, but note that such limitations may hinder subsequent implementation and transferability to other teacher education programs.

FLs were full time university faculty teaching in the UTR program. FLs were assigned to schools rather than individual teacher residents. On average, FLs worked with five to eight residents. FL expectations were to observe, provide feedback, evaluate resident performance, and help connect coursework and classroom practice. Expectations were to spend, on average, two half days in the school per month fall through spring. FLs also met monthly to problem solve and refine and develop the model. FLs received the equivalent of one course release per training academy for their work.

A More Holistic Lens to "Push Residents' Growth"

Mentors, residents, and MRCs appreciated that FLs knew both university and classroom expectations. In this manner, liaisons were able to "push residents' growth" in ways that would not be possible if liaisons were not situated in both university and training academy classrooms. Mentors and MRCs described confusion in past years about course expectations, indicating a limited capacity to support the university experience at the training academies. As one MRC indicated, liaisons "brought clarity and information so that the resident can be developed more holistically." Each liaison stated that she made it a point to discuss coursework. Reflecting her colleagues' statements, one liaison said:

> The MRC and mentors know that the residents are taking courses, but they don't know what they are or the effect on the knowledge and practice base of the residents…I share syllabi at the beginning of the terms so mentors can plan ahead for what residents will learn and need to do.

Mentors concurred, indicating that liaisons helped them understand the sequence of courses, the content taught, and plan ahead for residents' school-based assignments. Mentors appreciated the advanced knowledge, stating that in years past residents would let them know they needed to implement a project, and mentors would have to adjust already busy schedules to accommodate course expectations. Mentors stated this knowledge helped them be able to plan more proactively and effectively support residents' university coursework in the classroom.

Liaisons stated that sustained time in the classrooms helped them build knowledge they

did not previously possess about the practices implemented at training academies and the degree of success residents had translating course content into practice. If a particular practice was not implemented in a classroom because of grade level, content area, or other reasons, liaisons coordinated with MRCs and/or mentors or modified their coursework to help ensure residents had a fuller range of experiences. Additionally, liaisons noted that observing residents' successes and challenges provided them with insights into the problems of enactment residents encountered that they had not previously obtained. As a result, liaisons stated that they drew upon these insights to reteach or provide additional in-class practice opportunities, to model or bring in videos to illustrate particular concepts or practices, and to discuss the nuances that could lead to stronger implementation.

Connecting Courses and Context: "A More Coherent Experience"

Data indicates that the liaison role helped residents see the connections between courses and classrooms, providing, as one mentor indicated, "a more coherent experience." Each liaison stated that helping residents see the connections between their coursework and residency classroom was a critical aspect of the role. Reflecting her colleagues' statements, one liaison further noted, "I help residents see how the coursework they are taking can be implemented into their work in the classroom, particularly when they are not seeing the connections on their own." Residents' survey data consistently revealed that they valued having a professor in their classroom. Residents stated that liaisons helped them "have a meta-view of the program" and provided feedback and insights on how to implement or adapt practices to be effective in their particular context. However, some residents indicated a theory-practice disconnect in some courses in which professors were not in training academies.

Liaisons explained that time spent in classrooms improved their university teaching. Each liaison discussed ways in which s/he specifically modified assignments and scaffolded course content to better connect the assignment to residents' context. Specifically, liaisons drew upon their experiences in training academies to clarify and augment course content by collecting samples of student work to analyze and discuss in class, capturing videos and/or photographs to represent and concretize concepts, and developing case studies for residents to discuss and analyze in class. Liaisons said that while they used video and student work samples in past classes, they believed that residents appeared to be more engaged with and by examples that were drawn from their actual context. Furthermore, liaisons stated that by regularly observing residents' teaching, they were better able to responsively adjust university coursework, such as providing additional practice opportunities and/or readings and discussions when residents struggled to implement certain practices.

Developing "A More Expansive Role"

The liaison role was developed and funded to not only support residents' practice via observation and feedback, but to also communicate university expectations and connect experiences. In addition, each liaison found that they developed relationships with mentors and MRCs that led them to contribute their disciplinary knowledge to the training academies. Mentors and MRCs corroborated and stated that they appreciated liaisons' "content knowledge and expertise."

To illustrate, one liaison worked weekly with struggling readers in a third grade

classroom while another helped the MRC inventory and analyze the school's science materials and curriculum. Each liaison stated that they located research and other professional materials for MRCs and mentors to help them respond to problems of practice. Liaisons stated that an important aspect of the FL model was their ongoing presence in a school, which allowed them to develop relationships and have a more "engaged" and expansive role than what they experienced as traditional supervisors. Each liaison stated that contributing their expertise in the schools made the role more interesting and fulfilling. As one MRC stated, "The liaison has a better sense of the school as a whole, where the needs are, and where we can push not just this one resident, but the whole building."

Two tenure track liaisons also discussed the importance of connecting research to the role if they were to comfortably continue in it. One discussed the need for "a more expansive role" explaining, "Tenure track faculty need to do research…If not, it's going to be hard to get people to commit [to being liaisons]. We've started developing the relationships. My hope is next year, I'll be able to engage in research that is meaningful to the school and to me."

Faculty Research Residencies

In the Faculty Research Residency (FRR) project, university faculty were situated in UTR training academies to engage in a research project in their discipline and apply the contextual knowledge gained from this in-depth experience to inform teacher preparation course redesign. FRR projects spanned a year. The FFR project was funded through the Department of Education's Fund for the Improvement of Post Secondary Education (FIPSE) grant.

The FRR model was informed by and applied practice-based theory (Ball & Forzani, 2010; Grossman et al., 2009; Lambert, 2010). A shift to a practice-based design in teacher learning requires that teacher educators deepen their participation within schools and redesign university learning to explicitly explore the nexus of theory and practice (Darling-Hammond, 2010; Wang et al., 2010). The outcome of tighter integration between theory and practice is better prepared teacher candidates who are more likely to overcome the challenges of "enactment" in complex classroom environments and ultimately improve student learning (Hammerness et al., 2005).

The FRR cycle began with a call for proposals in which individual faculty or faculty teams identified a course or set of courses they wished to improve using practice-based principles and developed a research proposal to be conducted in UTR training academies. The leadership team (comprised of UTR and university personnel) reviewed proposals and interviewed and selected faculty participants whose proposals showed promise of significant curricular change and were a good fit for UTR classrooms. The leadership team also helped to match faculty with mentors in training academies as needed (e.g. faculty studying assessment were matched with mentors who demonstrated exemplary use of assessment to inform instruction).

During the research residency year, faculty attended monthly seminars to read literature pertaining to practice-based theory and collaborate around their research and course redesign. At the end of the residency year, faculty presented research findings and course redesign to the leadership team, UTR participants, the College of Education, and to other academic audiences. The grant funded course reduction for faculty and honorariums for UTR participants (typically classroom teachers). Examples of faculty projects included studying assessment principles,

standards-based grading, science inquiry, and literacy practices (e.g. implementation of word study and guided reading in high needs settings).

Understanding problems of enactment

Situating faculty in training academies revealed where enactment challenges occurred, the contextual factors that contributed to those challenges, and provided insights into how course content could be scaffolded to support resident learning. In one example, a faculty member studying standards-based grading was matched with a training academy that had recently adopted that practice. What he found was that mentors were struggling to implement standards based grading practices. Through observations and interviews, the faculty member was able to identify the challenges mentors faced and revise his course to specifically address these issues of enactment. Without exception, faculty members discussed how being in classrooms helped them see, and later change, their courses to respond to the myriad of challenges that residents face when enacting student-centered practices. One faculty resident exploring inquiry science explained, "Seeing the challenges teachers face in incorporating inquiry approaches: it was sobering! The more I get out and work with teachers, the more of these realities I can bring in [to my courses]."

Applying a Practice-Based Theory

Theoretically driven higher education coursework often represents teaching using abstractions of concepts that are hard for novice teachers to translate into effective practice (Grossman et al., 2009; Hammerness et al., 2005). By immersing themselves into training academy classrooms, faculty were able to collect and create a range of artifacts that helped concretize the theory and practices in their university courses such as case studies, student work, and video exemplars. Faculty consistently stated that the course revisions improved resident learning in that residents appeared to better understand and more effectively enact the practices they taught.

To illustrate, the faculty member studying standards-based grading brought in more readings to address knowledge gaps and used student work collected in training academies to provide opportunities for residents to collaboratively discuss and practice standards based grading in his university classes. A literacy methods instructor captured videos of exemplary guided reading and word study practices at training academies, as well as interviews with mentors explaining the thinking that goes into planning and executing successful lessons. These videos were shown in the university classes where the faculty member and residents discussed visible and invisible aspects of practice.

Later, residents would video their own word study and guided reading lessons and bring them to class to share and analyze. Additionally, the science inquiry team developed and tested an observation protocol to help residents identify the many steps and processes that go into developing and executing successful inquiry lessons. Document analysis and interviews indicate that faculty revised their courses based on insights derived from high needs settings. One faculty member explained:

> My syllabus is 100% different…We used to give them so many different things and overwhelm them - and it's helping them be less overwhelmed. We've moved to "less is

> more"…No more doing something once. That's not enough. Really going out into the schools and trying these practices out in multiple iterations - doing it, seeing how you did, then changing it as a result.

Discussion

The interventions described were designed to engage faculty in high needs, high poverty training academies in order to bridge the theory-practice gap and improve teacher education in the residency program. Situating university faculty in training academies as liaisons and research residents appeared to deepen their understanding of school contexts and the demands of schooling. In turn, faculty applied these insights to address theory-practice gaps and create a more coherent experience between university and school-based experiences.

As such, both interventions reflect Wegner's (1998) notions of boundary spanning, providing the context to build new relationships and develop insights that can subsequently be applied to create new and/or revise existing tools, artifacts, and documents. In the case of the liaison and research residency models, university faculty's presence in training academy classrooms helped them develop insights into and responses to challenges of enactment. Liaisons developed relationships with mentors and MRCs that helped bridge school-university experiences. Liaisons and research residents drew upon experiences in training academy to contextualize their content; create new artifacts such as case studies and video exemplars; revise/update artifacts such as gathering authentic student work from training academies to augment and contextualize coursework; revise documents such as syllabi and course assignments; and develop new tools such as observational protocols.

Importantly, both interventions supported faculty presence in schools with the goal of improving the residency experience and residents' learning. To begin, faculty work in schools was compensated as teaching via course release. Additionally, faculty knowledge building was supported through monthly, collaborative meetings. While typical university structures tend to dissuade faculty from engaging in schools for purposes beyond research (Darling-Hammond, 2010; Zeichner, 2010), both interventions sought to support and engage faculty in school-based portions of teacher education.

Teacher education research aiming to bridge the pervasive theory-practice gap calls for the design and implementation of new roles and structures that increase university faculty engagement with and in field settings (Beck & Kosnik, 2002; Cucena et al., 2011; Darling-Hammond, 2010; National Council for the Accreditation of Teacher Education [NCATE], 2010; Zeichner, 2010). The faculty liaison and research residency models are promising roles and role structures for teacher education faculty. With both interventions, university faculty deepened their understanding of high needs schools and refined higher education courses in response to their increased understanding of local school needs and contexts.

Teacher education has moved toward more field intensive models. The success of these models is dependent, in part, on a strong intersection of theory and practice that helps resolve problems of enactment. While partnerships may start off with strong theory-practice connections, such coherence is challenging to sustain (Goodlad, 2004).

Creating, implementing, and sustaining faculty engagement in field-based portions of teacher education is imperative if we are to address the perennial theory-practice gap. Clearly, when structures are created and implemented, faculty are willing and able to invest in field-based teacher education. The question is sustainability.

What will happen to our UTR and other grant supported programs when the funding ends? Will the innovative structures developed in such programs be sustained? Or will we look back upon the movement toward field intensive teacher education as a movement that demonstrated, but did not sustain, its promise?

References

Ball, D.L., & Forzani, F. M. (2010). The work of teaching and the challenge for teacher education. *Journal of Teacher Education, 60*(5), 497-511.

Beck, C., & Kosnik, C. (2002). Professors and the practicum: Involvement of university faculty in preservice practicum supervision. *Journal of Teacher Education, 53*(1), 6-19.

Berry, B., Montgomery, D., Curtis, R., Hernandez, M., Wurtzel, J., & Snyder, J. (2008). *Creating and sustaining urban teacher residencies: A new way to recruit, prepare and retain effective teachers in high-needs districts.* The Aspen Institute/Centern for Teaching Quality. Retrieved from: http://www.eric.ed.gov:80/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3e/b8/0e.pdf

Bullough, R., & Kauchak, D. (1997). Partnerships between higher education and secondary schools: Some problems. *Journal of Education for Teaching, 23*(3), 215-233.

Corbin, J. & Strauss, A. (2008). *Basics of qualitative research (3rd ed).* Los Angeles: Sage.

Cucenca, A., Schmeichel, M., Butler, B., Dinkelman, T., & Nichols, J. (2011). Creating a "third space" in student teaching: Implications for the university supervisor as outsider. *Teaching and Teacher Education, 27*(7), 1068-1077.

Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*. San Francisco: Jossey-Bass.

Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of Teacher Education, (61)*1-2, 35-47.

Gardiner, W. & Kamm, C. (2010). Urban teacher residencies: Collaborating to reconceptualize urban teacher preparation. In J. Slater & R. Ravid (Eds.), *Collaboration in Education.* (pp. 191-198). New York: Routledge.

Gatlin, D. (2009). A pluralistic approach to the revitalization of teacher education. *The Journal of Teacher Education, 60*(5), 469-477.

Goodlad, J. I. (2004). *A place called school (20th anniversary edition).* New York: McGraw-Hill.

Grossman, P., Compton, C., Igra, D., Ronfeldt, M., Shahan, E., & Williamson, P. (2009). Teaching practice: A cross-professional perspective. *Teachers College Record, 111,* 2055-2100.

Lampert, M. (2010). Learning teaching in, from, and for practice: What do we mean? *Journal of Teacher Education, 61*(1-2), 21-34.

Hammerness, K., Darling-Hammond, L., Grossman, P., Rust, F., & Shulman, L. (2005). The design of teacher education programs. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 358-389). San Francisco: Jossey-Bass.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis.* Thousand Oaks, CA: Sage.

National Council for Accreditation of Teacher Education. (2010). *Transforming teacher education through clinical practice: A national strategy to prepare effective teachers.* Washington, DC: Author. Retrieved from

http://www.ncate.org/LinkClick.aspx?fileticket=zzeiB1OoqPk%3d&tabid=715
Seidman, I. E. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (4th ed.). New York: Teachers College Press.
Teitel, L. (1999). Looking toward the future by understanding the past: The historical context of professional development schools. *Peabody Journal of Education, 74*(3&4), 6-20.
Wang, J, Spalding, E., Odell, S. Klecka, C., & Lin, E. (2010). Bold ideas for improving Teacher education: What we see, hear, and think. *Journal of Teacher Education, 61*(1-2), 3-15.
Zeichner, K. (2010). Rethinking connections between campus courses and field experiences in college and university based teacher education. *Journal of Teacher Education, 61*(1-2), 89-99.

Appendix A

Resident Survey

1. How often did your liaison visit?
2. What other communication did you have (phone, email, etc.)? How often?
3. What did you typically do when you met?
4. What were the most important roles and/or tasks of the liaison?
5. Were there roles or tasks you felt were unnecessary?
6. Did your liaison impact your development as a resident? If so, how and in what ways? If not, why not?
7. Are there other ways the liaison could have supported your development?
8. What were the benefits of working with your liaison?
9. What were the drawbacks?
10. To what extent did you feel that your liaisons' advice & expectations were aligned to those of the training academy?
11. What qualities do you think are most important in a liaison?
12. If we bring in new liaisons next year, what advice or suggestions do you have in terms of supporting your learning and development?

Mentor Survey

1. Have your worked with a traditional supervisor? If so, please respond to the following:

a. In what ways do you see the role of the liaison being similar and/or different from a traditional supervisor's role?
b. What are the benefits of the liaison role in comparison to the traditional supervisor?
c. What are the drawbacks?

2. What are the most important roles and/or tasks of the liaison?
3. Were there unnecessary roles or tasks?
4. Has the liaison done anything to support you as a mentor?
5. Does the liaison's work with residents supporting their learning and practice? If so, how and in what ways? If not, why not?
6. Were there any challenges (expected and/or unexpected) as they pertain to the faculty liaison role?
7. Would you recommend maintaining the liaison role next year? Why/why not?
8. Do you suggest any changes for the role?

Faculty Liaison Interview Protocol

1. What drew you to become a liaison?
2. Have you been a traditional supervisor?

a. In what ways do you see the role of the liaison being similar or different from that of supervisor?

3. How would you define the role of the faculty liaison?
4. What are the most important roles and/or tasks of the liaison?
5. Were there unnecessary roles or tasks?
6. Were there roles or tasks that you felt were particularly valuable?
7. Are there roles you didn't have but would consider valuable?
8. Describe a typical visit to a training academy.
9. Approximately how much time per week did you spend on this role (average)? Was the time allotted adequate to do the tasks required?
10. Describe some of the work you do outside of your visits.
11. In what ways do you feel your work with residents supported their learning and practice? If so, how and in what ways? If not, why not? Is that similar to or different from your prior supervisory work?
12. In what ways do you work with MRCs? Is that similar to or different from your prior supervisory work?
13. In what ways did you work with mentors? Is that similar to or different from your prior supervisory work?
14. What, if any, unexpected roles or tasks did you undertake?
15. Were there any challenges (expected and/or unexpected) as they pertain to the FL role? Prompt if needed
16. Has being a liaison impacted the coursework you teach at NLU?
17. Were you able to bring your own areas of expertise to your work as a liaison? If so, what? If not, why not?
18. What have been your most important insights about being a liaison in a training academy?
19. What advice would you give to others who are interested in becoming a faculty liaison?
20. Would you recommend maintaining the liaison role next year? Why/why not?
21. Do you recommend changes to the role?
22. Would you want to be a FL again next year? Why or why not? What would you similarly and differently?

MRC Interview Protocol

1. Did you work with a supervisor previously as an MRC?

a. In what ways do you see the role of the liaison being similar or different from the supervisor?
b. Ask about benefits and drawbacks to the role

2. How often do you meet with the liaison for your site?
3. What other communication do you have (phone, email) and how often?
4. What do you typically do when you meet?
5. What are the most important roles and/or tasks of the liaison?
6. Were there unnecessary roles or tasks?
7. Has the liaison done anything to support you as an MRC? If MRC worked with supervisors, ask: Is that similar to or different from your work with supervisors?
8. Can you describe how the liaison at your site worked with residents?

9. Can you describe how the liaison at your site worked with mentors?
10. If MRC worked with supervisors in the past ask: Do you think the liaison added value to residents' learning in ways beyond what a supervisor would?
11. Would you recommend maintaining the liaison role next year? Why/why not?
12. Do you recommend changes to the role?
13. If we move forward with new liaisons next year, what advice or suggestions do you have in terms of supporting your role and a mentor and residents' learning?

Appendix B

Faculty Research Residency Post-Residency Interview Protocol

Curricular impact

1. As a result of this residency specifically, to what extent have you changed the way you instruct your undergraduate or graduate students to be effective teachers in a HNS setting?
   To a great extent
   To some extent
   To a very little extent
   To no extent

   What evidence would you site as examples of this change?

2. What "next steps" do you intend for this research/project?

3. If you could capture your most significant "lesson learned" from this residency, what would it be? OR Please describe your key summary findings from the project:

Quality of the experience, residency structure and design

4. To what extent did your project differ from your original design or intention?
   To a great extent
   To some extent
   To a very little extent
   To no extent

   Please describe:

5. What were the most significant challenges you faced throughout this project?

   Could the project leadership team have solved this/these challenge(s) in any way? (In what way can future residents learn from these challenges?) Please describe.

6. To what extent did the monthly seminars contribute to your professional growth and development?
   To a great extent
   To some extent
   To a very little extent

To no extent

If great/some:
How did the monthly seminars contribute to your learning experience in this residency?

If none or little:
Why were the monthly seminars ineffective in contributing to your professional growth and development? How could they be structured or enacted to be more effective?

7. What advice do you have for the next round of faculty residents?

8. What feedback do you have for the Project Leadership Team in selecting future residents?

Pre- and Post Survey

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	No opinion
I have a thorough understanding of the CPS turnaround school model					
I have a good understanding of student learning in a high-need, low-performing school					
After this residency, my professional research interests will continue to be focused on the high-need, low-performing school setting					
I have a good idea of how this residency impacted my own teaching practice					
I feel like I am in touch with what is happening in a high-need, low-performing school					
I have a good idea of how my residency will now inform a practice-base theory of teacher learning					

DISTRIBUTED MENTORING: PREPARING PRESERVICE RESIDENT TEACHERS FOR HIGH NEEDS URBAN HIGH SCHOOLS

Marjorie Roth Leon
National Louis University

ABSTRACT

A distributed mentoring model was implemented to scaffold preservice teachers completing a residency in high needs urban turnaround high schools. In this situated learning context, expert faculty and peer mentors contributed confirmatory insights for promoting engaged evidence-based pedagogy, instructional differentiation, homework completion, classroom community building, student motivation, meaningful assessment, and student support, additive insights related to student attendance, meaning of school, and school personnel issues, and complementary insights regarding classroom management and student/teacher relationship building. The expert mentor demonstrated how theory and research inform classroom practice, recommended scholarly resources, and modeled evidence-based problem solving. Peer mentors validated one another's experiences, shared problem-solving strategies employed by local school personnel, and contributed instructional suggestions based on their situated learning encounters. The distributed mentoring model effectively addressed a broad range of knowledge and skills required for successful teaching in high needs urban high schools.

Introduction

Increasingly, urban teacher preparation programs are employing a residency training model. In this model, preservice teachers are situated in urban schools for an extended time (typically no less than a year) to observe and participate in teaching activities while simultaneously completing university coursework. This model thus combines elements of preservice teaching (university coursework) with that of beginning teaching (extended on-site direct teaching experience). Preservice resident urban teacher preparation programs are designed to "recruit, prepare, and retain bright and capable teachers for high-needs urban schools" (Berry, Montgomery, & Snyder, 2009, p. 1) and to insure that "preservice teachers…exit their teacher preparation program with a professional disposition toward equity and social justice as well as the knowledge and skills required to meet the needs of all students in their classroom" (Tindle, Freund, Belknap, Green, & Shotel, 2011, p. 1).

Research has found that both preservice and beginning teachers benefit from a distributed mentoring model in which knowledge and skills are acquired from a variety of expert and peer sources. These include "interactions with mentor teachers, university faculty, administration, parents and the community…interactions with each other and through introspection and reflection" (Kang & Nickel, 2012, p. 1). Expert mentoring is typically provided by university faculty and in-school mentor teachers for preservice teachers and by in-school mentor teachers, coaches, and administrators for beginning teachers. By definition, expert mentors have greater experience and expertise than mentees. Peer mentors for preservice teachers are usually other preservice teacher classmates, with mentors and mentees having similar levels of experience and expertise. Peer mentors for beginning teachers are most often in-service teachers at the beginning teacher's school who share an interest in instructional problem-solving and co-planning and who

function as co-equal colleagues regardless of their actual levels of experience and expertise.

Expert mentoring enhances preservice teachers' development of pedagogical practices in general (Frykholm, 2005) and specifically helps them acquire effective classroom management strategies (Kang & Nickel, 2012; Sempowicz, 2011). Expert mentoring fosters a strong and positive teacher identity that increases the likelihood that mentees will remain in the teaching profession (Walkington, 2005). Peer mentoring is equally efficacious, providing a forum for sharing teaching goals, discussing subject content, critiquing practice teaching videos, sharing classroom struggles, and celebrating successes (Frykholm, 2005). Some preservice teachers felt safer and more comfortable questioning peers than faculty or school-based mentors, and a majority believed they gained psychological support, feedback, and an exchange of ideas from peers (Kang & Nickel, 2012). Nguyen and Baldauf (2010) found that preservice teachers participating in a formalized peer mentoring program outperformed their non-peer mentored counterparts in instructional practice, while Sawchuk (2009) discovered that preservice teachers sought out peer mentors to discuss classroom successes and failures, reflect on their practice, and discuss problems arising in their academic content areas.

Expert mentoring is also a key component of beginning teachers' success (Conway, Hansen, & Schulz, 2004; Darling-Hammond & Berry, 1999, Johnson, 2001; Smith & Evans, 2008; West, 2002), playing an essential role in increasing beginning teacher retention (DeAngelis, Wall, & Che, 2013; Hallam, Chou, Hite, & Hite, 2012; Jones & Pauley, 2003; Kang, 2011; Smith & Ingersoll, 2004; Whitaker, 2000). Expert mentoring additionally increases beginning teachers' expertise and confidence (Evertson & Smithey, 2000; Fluckiniger, McGlamery, & Edick, 2006; Hanson, 2010; Langdon, 2011; Turley, Powers, & Nakai, 2006) and their processes of reflection (Forbes, 2004; Pedro, 2006). Showers and Joyce (1996) note that beginning teachers who were members of peer coaching groups that co-planned instruction "exhibited greater long-term retention of new strategies and more appropriate use of new teaching models over time" and that peer coaching groups frequently collaborated to identify pressing student needs, select appropriate curriculum content, and assess the impact of the curriculum on student performance (Showers & Joyce, p. 14).

Distributed mentoring is especially integral to the success of preservice and beginning teachers who teach in urban schools. A myriad of challenges exist in urban schools, including large class sizes, high rates of teacher turnover, low rates of long-term teacher retention, high student absenteeism, low student graduation, college attendance, and post-graduate employment rates, high rates of trauma and violence in students' home neighborhoods, and tenuous family-school partnerships. Expert mentoring of preservice urban school teachers increases these teachers' ability to recognize issues that impact children and families and to craft advocacy strategies for these issues, thus strengthening family-school partnerships (Catapano, 2006). Peer mentoring amongst preservice teachers increases subsequent teacher retention in urban schools (Hines, Murphy, Pezone, Singer, & Stacki 2003; Tobin & Roth, 2005), promotes greater critical reflective inquiry and ideological change (Mensah, 2009) and increases mutual social capital and respect between teachers and students in urban schools (Tobin & Roth, 2005).

Similarly, both expert (Metz, 2007; Saffold, 2006; Shakrani, 2008; Waddell, Edwards, & Underwood, 2008; Wilkinson, 2009) and peer mentoring (Malow-Iroff, O'Connor, & Bisland 2007) of beginning urban school teachers increases teacher retention. Expert mentoring furthermore builds teacher self-confidence, competence in the ability to teach, and the ability to engage with collegial networks that support teaching (Saffold, 2006) while peer mentoring helps beginning teachers overcome their sense of inexperience and isolation (Hines et al., 2003).

Although studies of expert and peer mentoring exist in the urban teacher preparation literature, rarely are these two types of mentoring examined comparatively within a single study. In the present study, the contributions of expert and peer mentors are examined within a single study sample, as are the ways in which these different types of mentoring provide confirmatory, additive, and/or complementary contributions to preservice resident urban teachers' knowledge and skill base. For purposes of this study, a confirmatory contribution is one in which expert and peer mentors both address an issue and do so in highly similar ways. An additive contribution occurs when one type of mentor raises and expounds upon an issue that the other type of mentor does not. A complementary contribution is present when expert and peer mentors both address an issue but do so in very different ways. Thus, the present study provides insights regarding how expert and peer mentors jointly reinforce and/or uniquely enhance knowledge and skills acquired by novice urban teachers.

Method

Participants

Twenty-five preservice teachers who had no previous teaching experience and who participated in a residency program within a network of high needs urban turnaround high schools in a large Midwestern city were studied. These turnaround schools have made low annual yearly progress toward student academic achievement and have experienced large-scale replacement of school administrators, teachers, and staff—but they have also added academic programs and upgraded physical facilities in an attempt to boost student success. Forty percent of participants were male and 60% were female. Fifty-six percent of participants were White, 24% were African American, 12% were Asian, and 8% were Hispanic. Participants taught in the disciplines of language arts, mathematics, science, social science, and special education. Preservice resident teachers observed and engaged in teaching activities on a daily basis four days per week while attending university classes to obtain their Master's of Arts in Teaching one day per week or evenings over the course of a year. Following the residency year, a majority of these resident teachers are offered employment within the turnaround public high school network for the next three years, and 90-95% of them are hired in this capacity.

During their residency year, preservice teachers receive three types of expert mentoring: mentor teacher coaching (from the resident teacher's on-site classroom teacher, who provides a model of teaching, coaching, feedback, and opportunities for reflection), mentor resident coaching (from an on-site full-time veteran teacher who provides both resident teachers and their mentor teachers coaching and who makes linkages between on-site residency and university coursework experiences), and university faculty mentoring (from university faculty who provide instructional coursework designed to enable resident teachers to succeed in urban classrooms and who help resident teachers make linkages between university coursework and on-site experiences while providing reflective opportunities.) Resident teachers are enrolled in a cohort that remains together as a unit through both the preservice residency and the post-residency first-year beginning teacher sequences, thus providing a powerful transitional network of peer-mentored support. Two forms of mentoring were examined in the present study: expert mentoring provided by a university faculty mentor (who is also the author of this study) and peer mentoring by cohort preservice resident classmates.

Instruments and Procedures

Data was collected from preservice resident urban teachers when they were students in the university faculty mentor/study author's introductory, blended learning educational psychology course. Prior to the start of class, each preservice resident was randomly assigned the responsibility to create and post a case study in week 1, 2, 3, 4, or 5 of the 10-week course. Thus, in each of the first five weeks of the course, five case studies were posted and available to receive expert and peer feedback. Case studies were privacy-protected and depicted real world situations that preservice residents encountered at their residency high school placements. In the week that a preservice resident posted their case study, they were responsible for providing at least one response to a peer's posted case study. In weeks where they did not post their case study, they were responsible for posting at least two responses to peers' posted case studies.

Each of the first five weeks, the expert faculty mentor responded publically on the discussion board to at least one of each preservice resident's posts. Preservice residents and their expert mentor were enjoined to discuss, critique, and augment case studies in light of theory, scholarly research, and experiential situational knowledge designed to advance preservice residency teachers' insights about situated urban classroom instruction.

Data were analyzed using a phenomenological research approach in order to understand core elements of the lived experience of distributed mentoring in high needs urban turnaround high schools (Cresswell, 1998). A deep understanding was sought of (a) the types of knowledge and skills expert and peer mentors contributed to the urban high school preservice resident teacher preparation experience (b) the extent to which this knowledge and skill set functioned in confirmatory, additive, and/or complementary ways, and (c) how expert and peer mentors applied evidence-based theory and research to teaching in urban classrooms within a climate of increased instructional accountability. Preconceived theories, hypotheses, "taken for granted" assumptions, and conventional wisdom about the nature of the phenomenon under study were suspended (bracketed, Lester, 1999, or epoched, Cresswell, 1998) in order to reduce distortion and allow the natural structure of the phenomenon to emerge from the actor's point of view (Moustakas, 1994). A multiple participant research design was employed in order to increase the strength of inferences drawn (Lester, 1999). Data consisted of written student (peer) and instructor (expert) narratives in the form of online discussion board postings. Rapport and empathy was maintained between researcher and participants (Lester, 1999) via online and face-to-face instructional mentoring and support delivered by the researcher to the participants over a ten-week time period. Themes were abstracted from preservice resident teachers' and their university faculty mentor's online postings in ways that provided essential meaning—that is, that exemplified the principle of "without which the experience would not have been the same" (Waters, n.d., p. 1). All abstracted themes represent collective themes that occurred across a majority of study participants (Waters, n.d.,). Themes were abstracted using the multi-step process outlined by Moustakas (1994) as follows: (a) read through all data to obtain a sense of the whole (b) re-read all data to identify transitions in meaning to facilitate meaning-making (c) eliminate redundancies, relate themes to each other, and relate themes to the whole (d) transform themes into the language of science (e) synthesize and integrate insights (Moustakas, 1994, p. 13-14).

Results

Knowledge and Skills Contributed by Expert and Peer Mentors

Figures 1 and 2 illustrate expert and peer mentors' most frequently-discussed content topics in online case study postings.

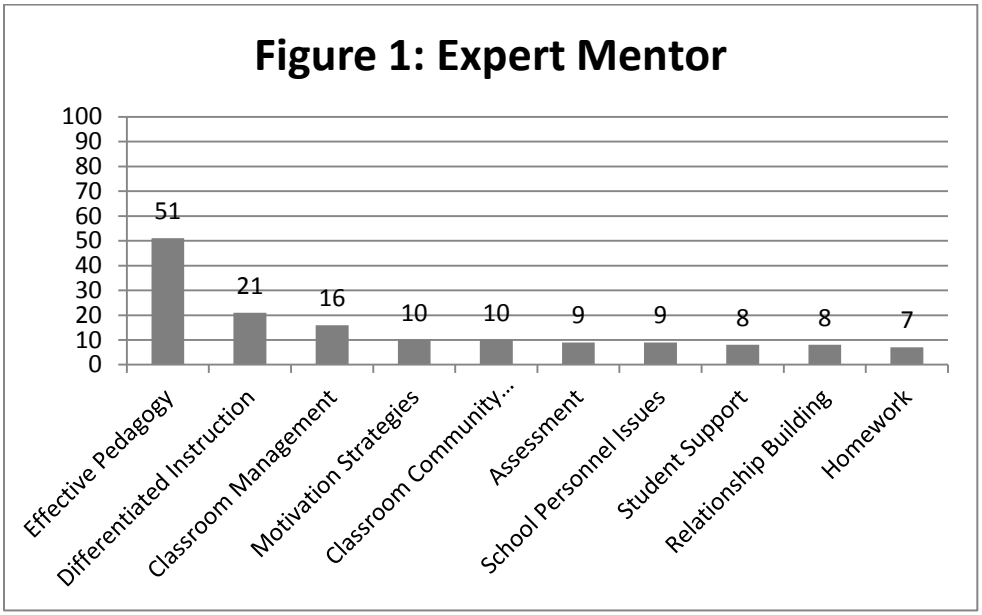


Figure 1. Number of Expert Mentor Postings for Most Frequently Discussed Topics (Total number of times the expert mentor posted on all topics = 179)

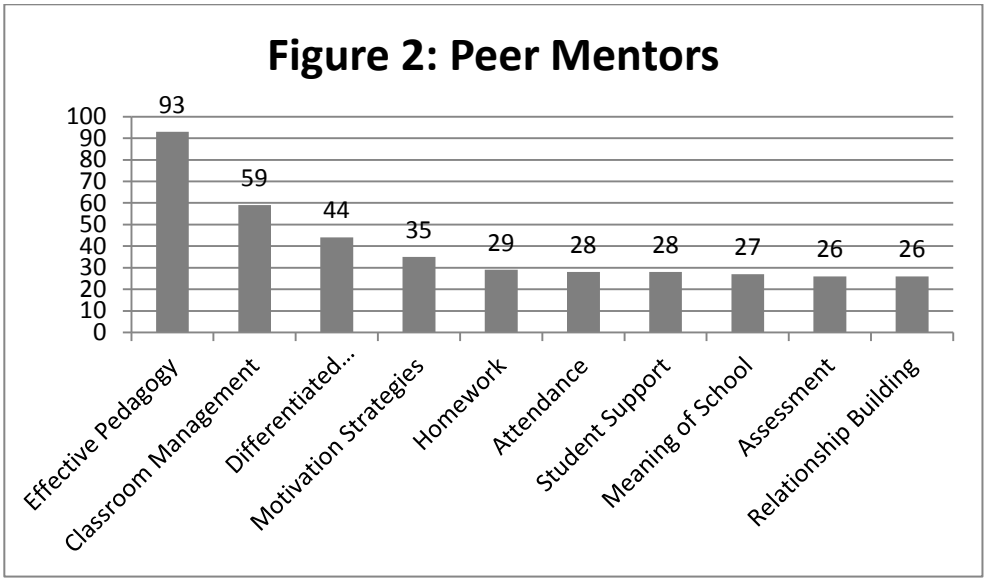


Figure 2. Number of Peer Mentor Postings for Most Frequently Discussed Topics (Total number of times peer mentors posted on all topics = 476)

In qualitatively analyzing this data, three primary themes emerged. The first theme involves "fostering student learning." Topics related to this theme included strategies for bolstering student attendance, designing differentiated instruction, engaging in effective pedagogy, encouraging students to complete homework, and finding ways to motivate students to perform school-related tasks. Both the expert and peer mentors placed high importance on discussing methods of differentiating instruction, engaging in effective pedagogy, increasing student homework completion, and employing effective motivational strategies with students, and did so in confirmatory ways. However, peer mentors raised a unique issue that they discussed extensively with each other that the expert faculty mentor did not: The negative impact of high student absenteeism on academic achievement, thus bringing an additive element to the discussion. A sampling of expert and peer mentoring comments related to this theme are presented in Table 1.

The second theme embodies "building positive school climate." Topics addressed within this theme included classroom community building, classroom management, and creating positive teacher-student relationships. Both expert and peer mentors were equally concerned with establishing positive classroom communities and effective classroom management systems. Preservice resident teachers were mandated by their turnaround high schools to implement an authoritarian, zero-tolerance, behavior-based discipline strategy. While adhering to this requirement, both expert and peer mentors were equally aware in a confirmatory way that relationship-building was a crucial element in building positive classroom community, as research indicates that building relational trust, respect, and personal regard for students are central to developing effective educational communities in urban schools (Bryk & Schneider, 2004).

However, expert and peer mentors provided complementary approaches to classroom management, with the expert mentor stressing student empowerment and belongingness as effective classroom management tools and peer mentors making numerous suggestions to each other about ways to adhere to the behavior-based discipline strategy as charged by their schools. Furthermore, while the expert mentor gave general advice on how to establish teacher-student relationships, peer mentors drew attention in a complementary way to the challenge of creating and sustaining teacher-student relationships in schools with high student turnover, a topic of high interest amongst all resident teachers. A sampling of expert and peer mentoring comments related to this theme are presented in Table 2.

The third identified theme is "navigating the school as system." Every school is complex, but high needs turnaround urban high schools face unique challenges in terms of being staffed by new teachers, administrators, and support staff, all who are attempting to produce success in a school that has been labeled as underperforming. In this regard, both the expert and peer mentors flagged the need for meaningful assessment of student progress and support of academically and socially struggling students in a confirmatory way. However, the expert mentor additively addressed issues related to school personnel (including teacher retention, professional development, and support), building collegial relationships, navigating inconsistencies in school policy implementation, and addressing classroom problems using a systems approach, while peer mentors discussed how to demonstrate the relevance of schooling to students who had few adult role models who had either graduated from high school or attended college, a topic that generated a great deal of peer-to-peer discussion. A sampling of expert and peer mentoring comments related to this theme are presented in Table 3.

Table 1
Expert and Peer Mentor Sample Comments: Fostering Student Learning

Content Topic	Expert Mentor Comments	Peer Mentor Comments	Contribution Type
Attendance	-	"There's always one guy who misses school for three days and then shows up late on the fourth day and acts like he doesn't want to be there. My goal as a teacher is to never budge on one principle: Meet them half way."	Additive
Differentiated Instruction	"If you see an intervention that has potential but needs some tweaking, go ahead and tweak it. Then collect data on how well it works. This is what being a practitioner-researcher in your classroom is all about."	"If we approach our students as "shepherds" seeking to guide them to whatever resources they need to be successful in their learning, then we will do our best to investigate what it is that is at the root of their behavior."	Confirmatory
Effective Pedagogy	"Good teachers build lessons around learning objectives and goals—not around instructional materials and instructional strategies."	"Truly transformative uses for technology exist but they simply don't fit into five out of five lessons per week. I think we should concentrate on finding one or two fantastic uses for them a week per class."	Confirmatory
Homework	"In-school study halls and flex in-school work periods are powerful aids to helping students complete their homework. Research on the appropriate level of difficulty for assigned homework suggests that students should be able to complete 90-95% of a homework assignment on their own—which means homework is supposed to offer opportunities to practice reasonably well-learned skills, not present new and unfamiliar content."	"Consider an internet based homework assignment due the next day in a school where 90% of students do not have internet access outside of school. Most would agree this is an unrealistic expectation—but the same assignment with a 5-day deadline would be reasonable. You haven't changed the educational value of the assignment and you have maintained the integrity of student responsibility, but by considering the entire demographic you have employed a realistic journey."	Confirmatory
Motivation	"Many [disengaged] students are indeed high achievers who could be empowered to be leaders inside and outside of school if they are mentored to do so and appropriate venues can be found for their talents."	"I'm wondering: Can we jump start [this disengaged student's] interest, or is that up to him? Are we just there as an obligated babysitter to keep him off the streets? When does our role stop and his own self-efficacy begin?"	Confirmatory

Table 2
Expert and Peer Mentor Sample Comments: Building Positive School Climate

Content Topic	Expert Mentor Comments	Peer Mentor Comments	Contribution Type
Classroom Community Building	"That guy in class," from psychologist Alfred Adler's point of view, is engaging in the mistaken goal of power. Power is tremendously important for students who want to feel that they control important and meaningful aspects of their lives."	"My consequences tended to be framed in terms of "I need you to do X" or "X is unacceptable." Not, "You have a choice, do X or suffer a consequence," or "You need to do X in order to learn." I think students would give me much less pushback if they felt like they had agency and felt like this was "our" classroom."	Confirmatory
Classroom Management	"The more classroom community building that takes place, the less classroom management is required."	"Sometimes my students have a general lack of respect for me as a teacher and towards my abilities as a resident. They also think/have learned they are more likely to be able to get away with things when I am teaching than when my mentor—who has a super tight Behavior Management Cycle—is teaching."	Complementary
Teacher-Student Relationships	"Students read the message of caring and reliable teacher involvement even if they test you by repeatedly asking the 'Silent Question': 'People say I'm bad. I worry that I'm bad. Will my teacher think I'm so bad that he/she will give up on me?' Once students learn to trust a teacher's high expectations and high support, they stop asking the 'Silent Question'."	"Think of new ways to reach the new students: conferences, appointments, check-ins. Reach out, ask around your departments; talk to teachers and learn how the veterans have handled this stuff in the past."	Complementary

Table 3
Expert and Peer Mentor Sample Comments: Navigating the School as System

Content Topic	Expert Mentor Comments	Peer Mentor Comments	Contribution Type
Assessment	"As you teach the lessons you have prepared, can you use the ACT questions as a formative assessment to determine how much your students have learned and will be able to demonstrate on the ACT?"	"I truly believe that trying to train students how to answer certain types of questions fails to teach them the thinking skills which naturally allow them to think their way through a problem."	Confirmatory
Meaning of School	-	"Students expect to go to college, but they are simultaneously incapable of bringing a writing instrument or notebook to class. They expect to go to college, but to get them to read 10 pages for homework is a painful struggle."	Additive
School Personnel Issues	"The school principal has to establish meaningful, attainable, and consistent standards and then train all school personnel (teachers, specialists, staff, and administrators) to implement these standards with students."	-	Additive
Student Support	"If school is a place where students not only learn academic skills but also a place where they practice real-world demands, a student who steps up to responsibilities will ultimately keep a real-world job."	"As secondary educators we truly have a responsibility to teach the students good academic behavior, as they are so close to either attending college or choosing a vocational career."	Confirmatory

Additional topics highlighted by both expert and peer mentors in confirmatory ways included providing high school students with mentors and positive role models, helping combat students' learned helplessness, defining high but realistic teacher expectations for students, and building effective family-school partnerships.

Application of Evidence-Based Theory and Research to Urban Classroom Instruction

Figures 3 and 4 detail theoretical paradigms referred to by name (most characteristic of the expert mentor) or by inference (most characteristic of peer mentors).

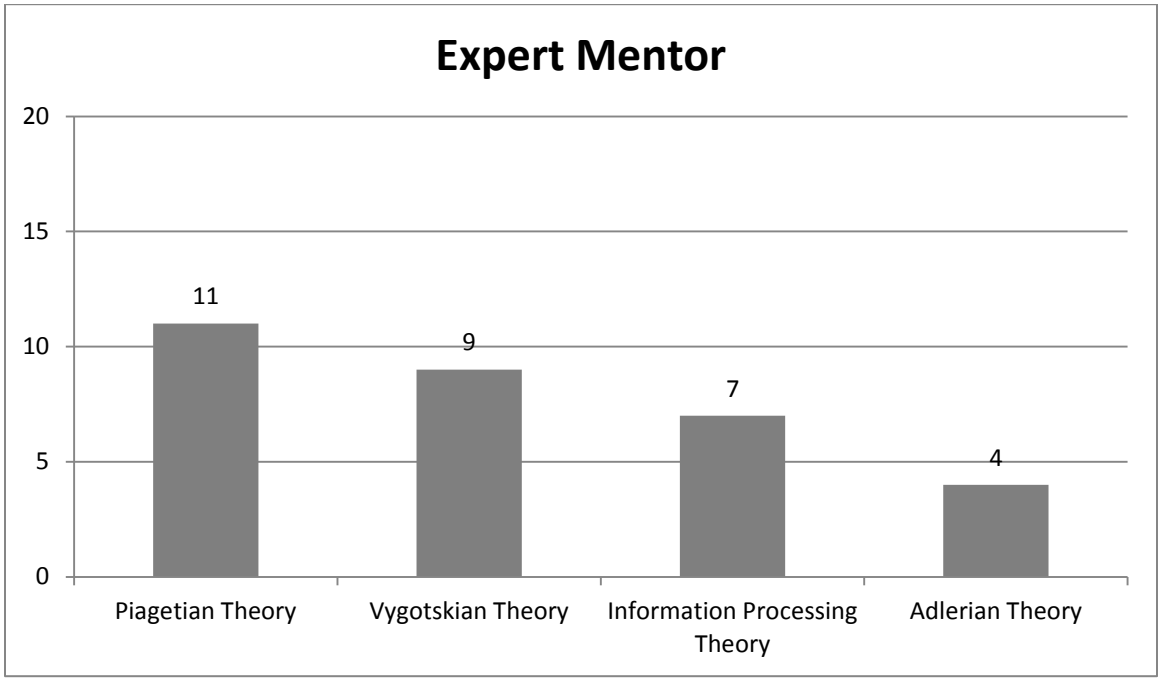


Figure 3. Number of Expert Mentor Postings for Most Frequently Discussed Theories (Total number of times the expert mentor posted on all theories = 53).

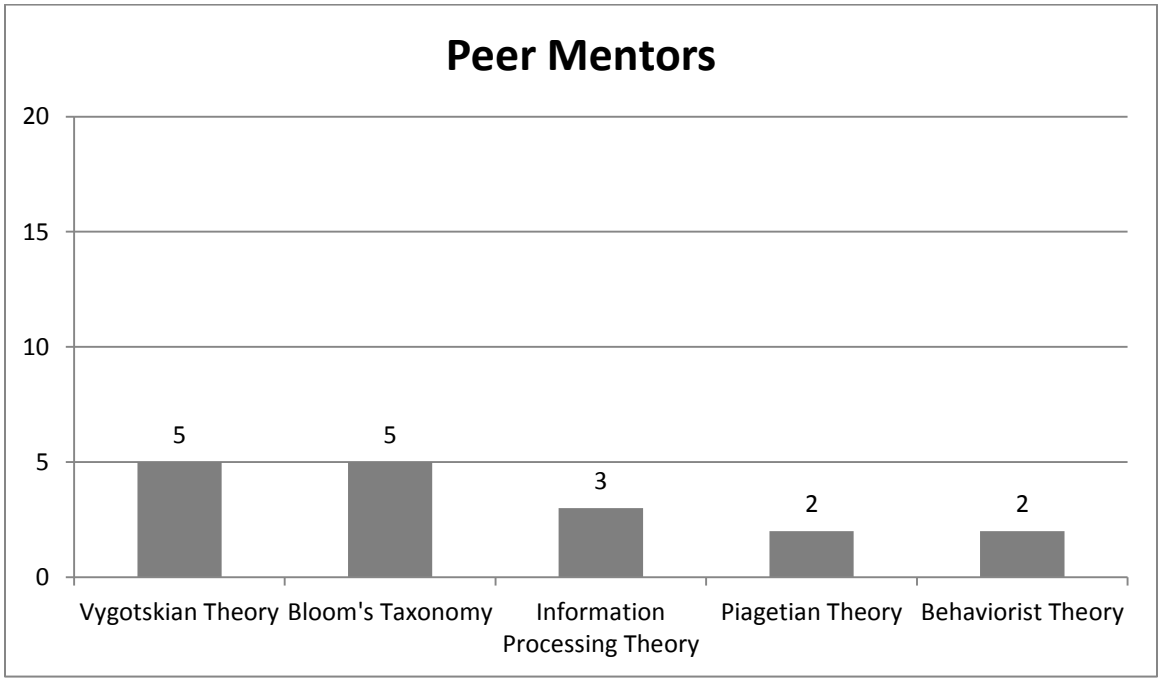


Figure 4. Number of Peer Mentor Postings for Most Frequently Discussed Theories (Total number of times peer mentors posted on all theories = 21)

Table 4
Expert and Peer Mentor Sample Comments: Theoretical Paradigms

Theory	Expert Mentor Comments	Peer Mentor Comments	Contribution Type
Adlerian Theory	"Here we likely have one of Adler's mistaken goals: Inadequacy, in which a student erroneously believes that "I cannot belong. I am helpless and unable to do things for myself."	-	Additive
Bloom's Taxonomy	-	"Discovery-based learning and pushing higher Bloom's levels is hard stuff. I don't fully have a grasp on increasing the amount of such activities in my math lessons."	Additive
Information Processing Theory	"You may want to consider factors that increase student attention to what you are teaching. Paying attention is the first step towards remembering from an information processing point of view."	"We review material every day and try to incorporate previous topics into lessons to increase the retention rate. Still, if I were to ask students about a particular topic from a few weeks ago, only a few students would remember."	Confirmatory
Piagetian Theory	"Piaget says that to be able to learn anything new, we have to know which existing conceptual schema to place this new learning into or have to know it is necessary to create a new schema if no previous schema exists."	"According to Piaget, stimulating curiosity and promoting discovery based learning deepens knowledge."	Confirmatory
Vygotskian Theory	"Any time we place students as mentors (experts) for younger students (novices; Vygotsky), we typically see gains in both our expert and novice groups. Hence one reason why the letter-writing approach works.	"One intervention had students write letters to younger, middle school students about how intelligence is malleable and can improve with individual effort. Students who wrote these letters had improved GPAs."	Confirmatory

Thematically, both expert and peer mentors' discussions focused primarily on theories related to cognitive learning, with discussion of theories related to social-emotional learning representing a distant second-tier topic of conversation. Overall, the expert mentor contributed the majority of specifically-identified theory-based discussion, indicating that more effort needs to be directed towards encouraging novice teachers to apply evidence-based theories to classroom practice, especially in a national school climate that compels teachers to engage in evidence-based decision-making. The low annual yearly progress, graduation, and college attendance rates that characterize many high needs urban high schools makes focusing on student academic gains inevitable.

It is therefore not surprising that both expert and peer mentors referenced the cognitive learning theories of Vygotsky, Piaget, and Information Processing Theory in a confirmatory way, especially since these learning theories were directly taught in the context of the educational psychology course. Since novice teachers spend long hours engaged in lesson planning, Bloom's Taxonomy of the Cognitive Domain was a popular additive topic of discussion amongst peer mentors. Peer mentors also additively advised each other to implement operant conditioning strategies to deal with social-emotional issues (as required by their residency schools) while the expert mentor additively augmented the peer mentors' behavior-based strategy by offering a relationship-building approach to student social-emotional growth via Adlerian theory. Additional theories cited additively included Bandura's modeling theory, Erikson's psychosocial developmental theory, Dewey's and Montessori's experiential learning theories, and Gardner's and Sternberg's multiple intelligence theories (introduced by the expert mentor) and constructivist theory and discovery learning (discussed amongst peer mentors). A sampling of expert and peer mentoring comments related to this theme are presented in Table 4.

Figures 5 and 6 highlight the types of evidence-based research that expert and peer mentors cited most often to inform classroom instruction.

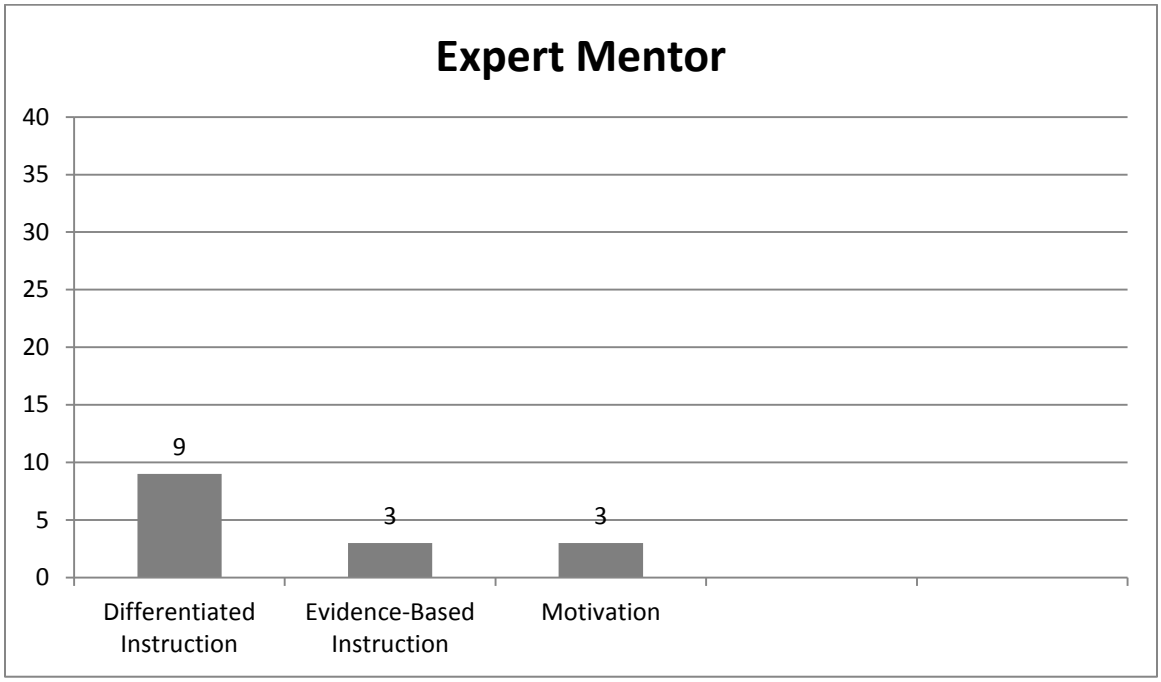


Figure 5. Number of Expert Mentor Postings for Most Frequently Discussed Evidence-Based Research (Total number of times the expert mentor posted on all evidence-based research = 38)

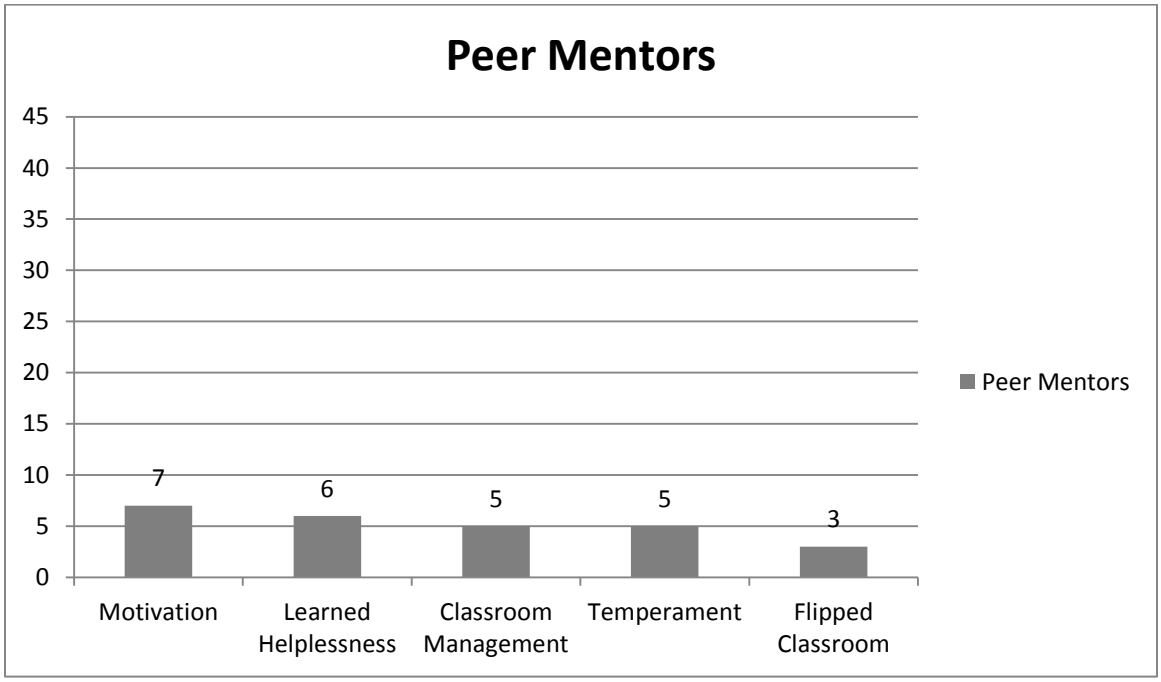


Figure 6. Number of Peer Mentor Postings for Most Frequently Discussed Evidence-Based Research (Total number of times peer mentors posted on all evidence-based research = 43)

Overall, the expert and peer mentors applied scholarly research with near-equal frequency, a nod to both the course requirements and to the increased evidence-based instructional climate currently prevalent in schools that serve preschool through age 21 learners in the US. Both the expert and peer mentors referenced scholarly research pertaining to motivational strategies, but did so in complementary ways by referencing different scholarly readings. In additive fashion, the expert mentor focused on research related to differentiated and evidence-based instruction, two mandates of the new Common Core State Standards these novice teachers must meet.

Peer mentors additively cited research related to combating learned helplessness, exploring implications of this vital issue for successfully teaching adolescents in high needs schools (many of whom have encountered various types of uncontrollable negative events). Biological temperament (an idea introduced by the expert mentor that was discussed amongst peer mentors) and the flipped classroom, a pedagogical strategy many high needs urban high schools are currently experimenting with to increase homework completion and classroom engagement, were highlighted additively within peer mentor discussions. Other scholarly research topics explored additively by the expert mentor included using advance organizers, purposive curriculum design, effective family-school partnership building, fear of failure/success, homework, metacognition, mentoring, a multi-tiered system of supports (MTSS), negotiation strategies, situated cognition, and student engagement models. Peer mentors additively contributed research regarding brain-behavior development/connections, correlations between attendance and graduation rates, demoralized school cultures, instructional assessment, peer tutoring, socioeconomic status and schooling, student-teacher relationship building, and universal design of learning.

It is not surprising that preservice resident urban teachers' decisions about classroom practice are informed to a greater extent by suggestions emanating from their own, peers', and on-site mentor teachers' experiences than they are by theory. More curricular emphasis on applying evidence-based theory to classroom practice is needed to provide these teachers with insights regarding why their classroom interventions might be succeeding or failing. Nevertheless, the amount and diversity of scholarly research referenced in relation to decision-making in high needs urban high schools by both expert and peer mentors is highly encouraging and reiterates the need for teacher induction curricula to provide opportunities for novice teachers to locate, read, and apply relevant research to classroom practice throughout their university experience.

Discussion

Results of this study suggest that distributed expert/peer mentoring is effective in providing confirmatory, additive, and complementary knowledge and skills to preservice resident teachers working in high needs turnaround urban high schools. Identifying topics of shared interest amongst expert and peer mentors allows pre-eminent concerns in the areas of fostering student learning, building positive school climates, and navigating the school as system to emerge as important foci of study in preservice residency urban teacher induction curricula. Naming less frequently-referenced but highly relevant topics of discussion in additive and/or complementary ways suggests that some subset of these less-often included topics might judiciously be added to urban teacher induction curricula where they are currently absent.

Distinctly absent from the currently-studied model of urban teacher induction is any reference to critical theories such as social justice theory, critical pedagogy theory, and/or critical race theory. Implementation of core principles of these theories has been found to enhance the urban teaching experience for both teachers and students (Picower, 2007; Porfilio & Malott, 2011; Waddell et al., 2008). While a critical theory approach is not addressed within the currently-configured educational psychology course, the opportunity exists to do so. The course presently contains a week-long module devoted to issues of diversity in urban schools. Adding a critical theory perspective could substantially enrich the preservice resident urban teacher preparation experience. Based on this insight, a module that explores critical theory has been added to the next iteration of the educational psychology course.

Interestingly, although a number of the preservice resident teachers in this study were of the same ethnicity as their students, many experienced a socioeconomic and/or cultural divide from their pupils. This made these novice teachers particularly interested in locating research about culturally-sensitive effective pedagogy and classroom management strategies designed to help high needs urban youth succeed in school. A number of promising approaches could be highlighted in this regard within the context of the educational psychology course. One would be to use popular culture as a critical pedagogy tool to promote increased sensitivity to relevant diversity issues. Practitioners of this approach include Hatch (2008), who used rock music to promote a critical pedagogy perspective of urban teaching, and Porfilio and Malott (2011) who employed hip-hop and punk music to help White preservice and beginning in-service urban teachers

> …understand the social, political and historical dimensions of schooling, recognize how neoliberal globalization is the chief culprit behind the growing intensity of human suffering, misery, and environmental destruction pervading the planet, unpack the unearned privileges they

themselves and other members of the dominant society accrue from their racial class status, and yearn to join other concern [sic] citizens in a pro-social movement earmarked to build a more just and humane society. (p. 78).

Another pathway involves establishing social justice critical inquiry groups that engage preservice and beginning teachers in scholarly inquiry, practice, and expert and peer support. Critical inquiry groups enable teachers to continuously implement a social justice approach to teaching and curriculum development while functioning as change agents within their schools (Picower, 2007). Involving preservice and beginning in-service teachers in service learning projects within urban school neighborhoods is yet another way to promote social justice, as is having teacher candidates engage in community walks that assay an urban community's assets.

A distributed expert-peer mentoring model that provides confirmatory, additive, and complementary contributions to the induction process for preservice resident teachers is a powerful and promising approach. Future studies of this highly adaptive model could profitably explore how distributed mentoring could be modified to benefit preservice and beginning teachers working in variably-resourced, variably-aged urban, rural, and suburban school settings.

References

Berry, B., Montgomery, D., & Snyder, J. (2009). Urban teacher residency models and institutes of higher education: Implications for teacher preparation. *Center for Teaching Quality,* Retrieved from http://eric.ed.gov/?id=ED503644

Bryk, A. S., & Schneider, B. (2004). *Trust in schools: A core resource for improvement*. New York, NY: Russell Sage Foundation Publications.

Catapano, S. (2006). Teaching in urban schools: Mentoring pre-service teachers to apply advocacy strategies. *Mentoring and Tutoring: Partnership in Learning, 14*(1), 81-96.

Conway, C., Hansen, E., & Schulz, A. (2004). Becoming a teacher: Stories of the first few years. *Music Educators Journal, 91*(1), 45-50.

Cresswell, J. W. (1998). *Qualitative inquiry and research design*. Thousand Oaks, CA: Sage Publications.

Darling-Hammond, L., & Berry, B. (1999). Recruiting teachers for the 21st century: The foundation for educational equity. *The Journal of Negro Education, 68*(3), 254-279.

DeAngelis, K. J., Wall, A. F., & Che, J. (2013). The impact of preservice preparation and early career support on novice teachers' career intentions and decisions. *Journal of Teacher Education, 64*(4), 338-355.

Evertson, C. M. & Smithey, M. W. (2000). Mentoring effects on proteges' classroom practice: An experimental field study. *The Journal of Educational Research, 93*(5), 294-304.

Fluckiniger, J., McGlamery, S., & Edick, N. (2006). Mentoring teachers' stories: Caring mentors help novice teachers stick with teaching and develop expertise. *The Delta Kappa Gamma Bulletin, 72*(3), 8-13.

Forbes, C. T. (2004). Peer mentoring in the development of beginning secondary science teachers: Three case studies. *Mentoring & Tutoring: Partnership in Learning, 12*(2), 219-239.

Frykholm, J. (2005). A distributed model for teacher mentoring: Broadening the learning community. *New England Mathematics Journal, 37*(2), 10-19.

Hallam, P. R., Chou, P. N., Hite, Hite, J. M., & Hite, S. J. (2012). Two contrasting models for mentoring as they affect retention of beginning teachers. *NASSP Bulletin, 96*(3), 243-278.

Hanson, S. G. (2010). What mentors learn about teaching. *Educational Leadership, 67*(8), 76-80

Hatch, J. A. (2008). Preservice teachers' perspectives on critical pedagogy for urban teaching: Yet another brick in the wall? *Teacher Education and Practice, 21*(2), 128-145.

Hines, S. M., Murphy, M., Pezone, M., Singer, A., & Stacki, S. L., (2003). New teachers' network: A university-based support system for educators in urban and suburban "ethnic minority" school districts. *Equity and Excellence in Education, 36,* 300-307.

Johnson, H. R. (2001). Administrators and mentors: Keys in the success of beginning teachers. *Journal of Instructional Psychology, 28*(1), 44-49.

Jones, M. S., & Pauley, W. F. (2003). Mentoring beginning public school teachers. *Adult Learning, 14*(1), 23-25.

Kang, S. (2011). Understanding the impacts of mentoring on beginning teacher turnover. *National Teacher Education Journal, 4*(4), 87-97.

Kang, H-W & Nickel, M.A. (2012). Many pieces of the puzzle: A collaborative process of becoming a teacher. *Journal of Case Studies in Education, 3*, 1-6.

Langdon, F. (2011). Shifting perception and practice: New Zealand beginning teacher induction and mentoring as a pathway to expertise. *Professional Development in Education, 37*(2), 241-258.

Lester, S. (1999). An introduction to phenomenological research. *Stan Lester Developments*, Retrieved from http://www.sld.demon.co.uk/resmethy.pdf

Malow-Iroff, M. S., O'Connor, E.A., & Bisland, B. M. (2007). Intention to return: Alternatively certified teachers' support, ideology and efficacy beliefs. *Teacher Development, 11*(3), 263-275.

Mensah, F. M. (2009). Confronting assumptions, biases, and stereotypes in preservice teachers' conceptualizations of science teaching through the use of book club. *Journal of Research in Science Teaching, 46*(9), 1041-1066.

Metz, S. (2007). Supporting new teachers. *Science Teacher, 74*(5), 8.

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications.

Nguyen, H. T. M. & Baldauf, R. B. (2010). Effective peer mentoring for EFL pre-service teachers' instructional practicum practice. *Asian EFL Journal, 12*(3), 40-61.

Pedro, J. (2006). Taking reflection into the real world of teaching. *Kappa Delta Pi Record, 42*(3), 129-132.

Picower, B. (2007). Supporting new educators to teach for social justice: The critical inquiry project model. *Perspectives on Urban Education, 5*(1), 1-22.

Porfilio, B., J., & Malott, C. S. (2011). Guiding White pre-service and in-service teachers towards critical pedagogy: Utilizing counter-cultures in teacher education. *Educational Foundations, 25*(1/2), 63-81.

Saffold, F. (2006). Retaining urban teachers: The impact of mentoring. *Journal of Urban Learning, Teaching, and Research, 2*, 254-261.

Sawchuk, S. (2009). Teacher training goes in virtual directions. *Education Week, Technology Counts, 28*(26), 1-3.

Sempowicz, T. (2011). How can a mentor's personal attributes and pedagogical knowledge develop a preservice teacher's behaviour management? *The International Journal of Learning, 18*(1), 303-314.

Shakrani, S. (2008). Teacher turnover: Costly crisis, solvable problem. *Education Policy Center, Michigan State University,* 1-4.

Showers, B., & Joyce, B. R. (1996). The evolution of peer coaching. *Educational Leadership*, *53*, 12-16.

Smith, E. R., & Evans, C. (2008). Providing effective mentoring for alternate route beginning teachers. *The Teacher Educator, 43,* 249-278.

Smith, T. M., & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal, 41*(3), 681-714.

Tindle, K., Freund, M., Belknap, B., Green, C., & Shotel, J. (2011). The urban teacher residency program: A recursive process to develop professional dispositions, knowledge, and skills of candidates to teach diverse students. *Educational Considerations, 38*(2), 28-35.

Tobin, K., & Roth, W-M. (2005). Implementing coteaching and cogenerative dialoguing in urban science education. *School Science & Mathematics, 105*(6), 313-322.

Turley, S., Powers, K., & Nakai, K. (2006). Beginning teachers' confidence before and after induction. *Action in Teacher Education, 28*(1), 27-39.

Waddell, J., Edwards, L., & Underwood, E. (2008). Defining the model for urban teacher preparation. *Metropolitan Universities, 19*(4), 50-56.

Walkington, J. (2005). Becoming a teacher: Encouraging development of teacher identity through reflective practice. *Asia-Pacific Journal of Teacher Education, 33*(1), 53-64.

Waters, J. (n.d.) Phenomenological research guidelines. Retrieved from http://www.capilanou.ca/psychology/student-resources/research-guidelines/Phenomenological-Research-Guidelines/

West, P. R. (2002). 21st century professional development: The job-embedded, continual learning model. *American Secondary Education*, *30*(2), 72-86.

Whitaker, S. D. (2000). Mentoring beginning special education teachers and the relationship to attrition. *Exceptional Children, 66*(4), 546-566.

Wilkinson, G. A. (2009). Supportive induction slows the revolving door. *Research in Comparative and International Education, 4*(1), 97-110.